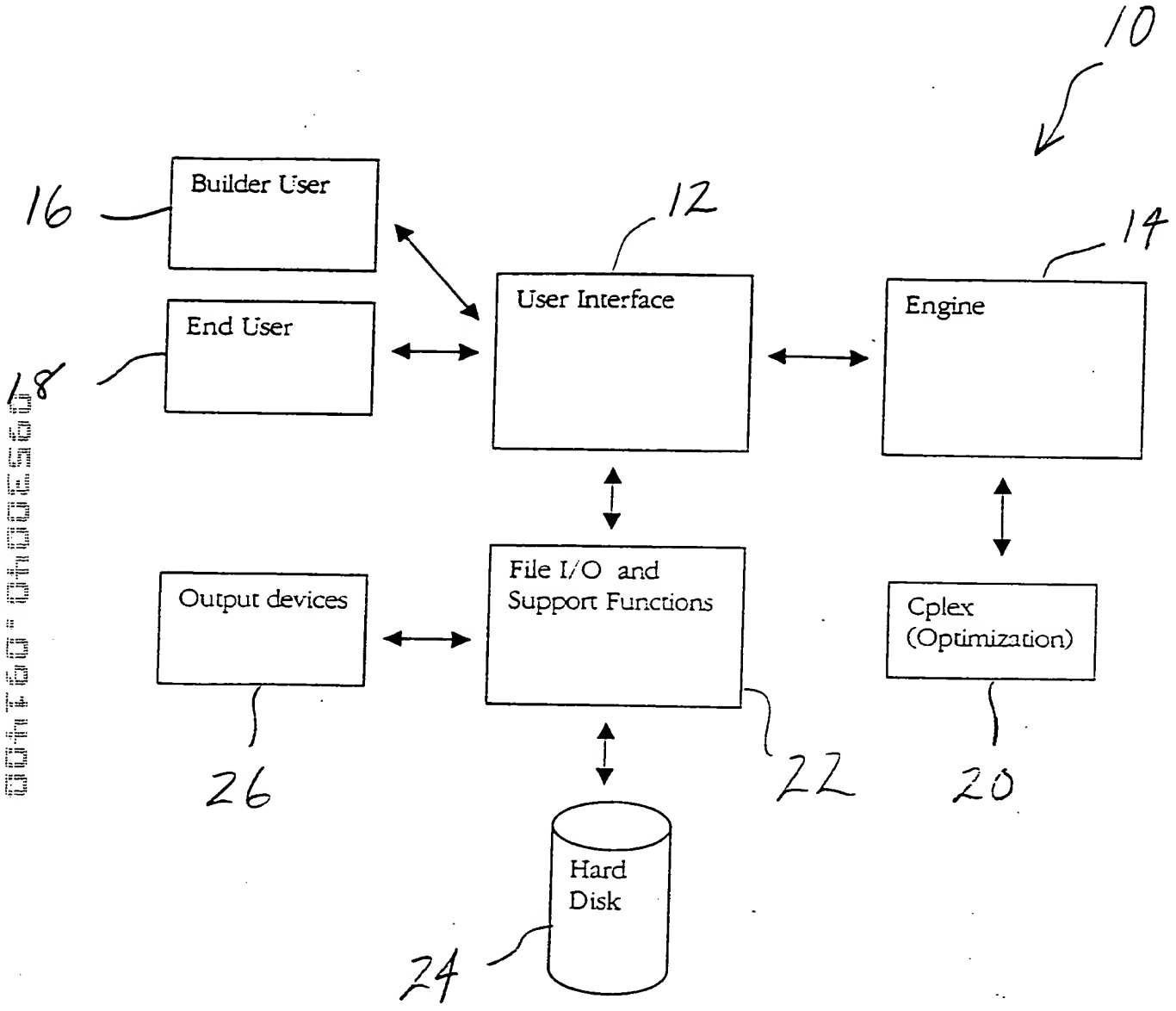

10
16
Builder User
12
14
User Interface
Engine
End User
18
Output devices
File I/O and
Support Functions
Cplex
(Optimization)
26
22
20
Hard
Disk
24

FIG. 1

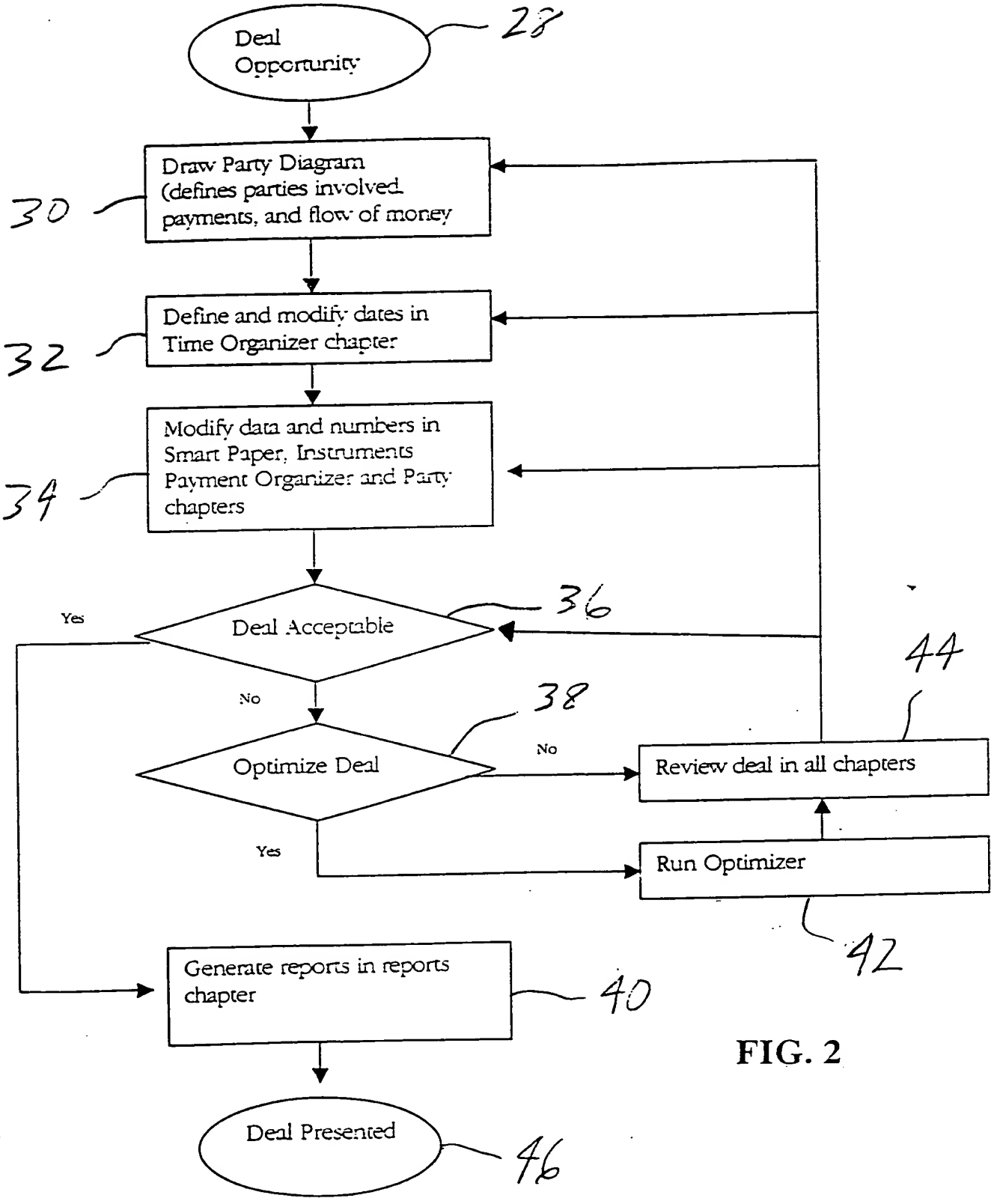

Deal Opportunity
28
Draw Party Diagram (defines parties involved payments, and flow of money
30
Define and modify dates in Time Organizer chapter
32
Modify data and numbers in Smart Paper, Instruments Payment Organizer and Party chapters
34
Deal Acceptable
36
Yes
No
Optimize Deal
38
No
Review deal in all chapters
44
Yes
Run Optimizer
42
Generate reports in reports chapter
40
Deal Presented
46

FIG. 2

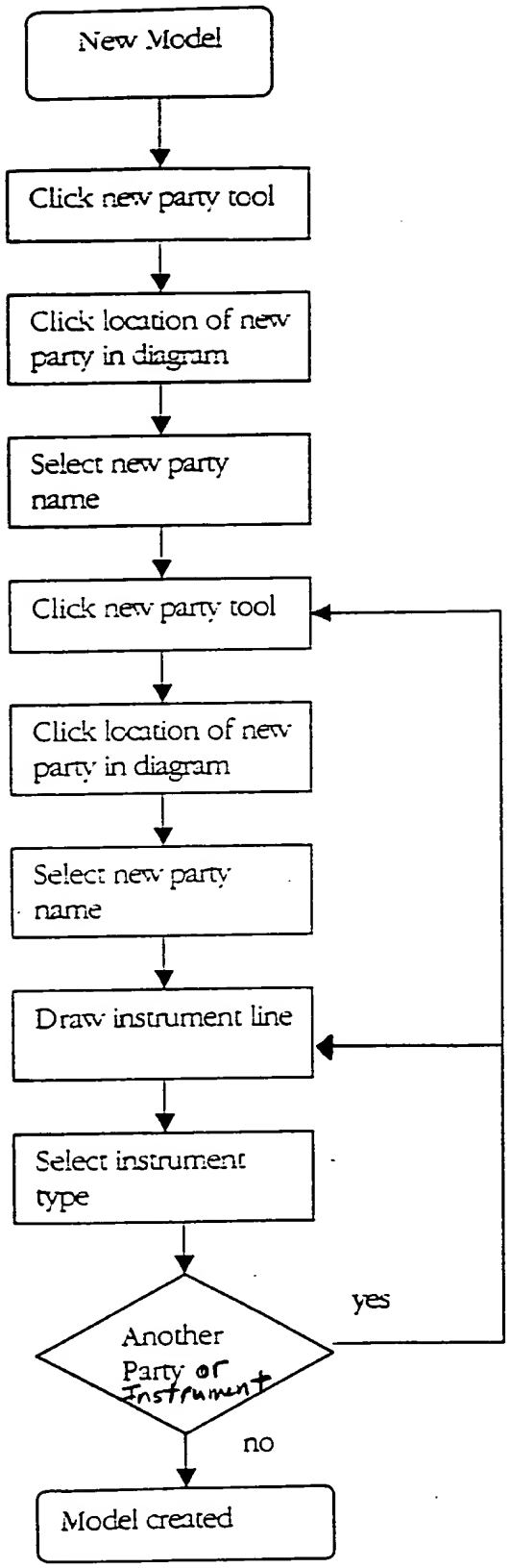

New Model
Click new party tool
Click location of new party in diagram
Select new party name
Click new party tool
Click location of new party in diagram
Select new party name
Draw instrument line
Select instrument type
Another Party or Instrument
yes
no
Model created

FIG. 3

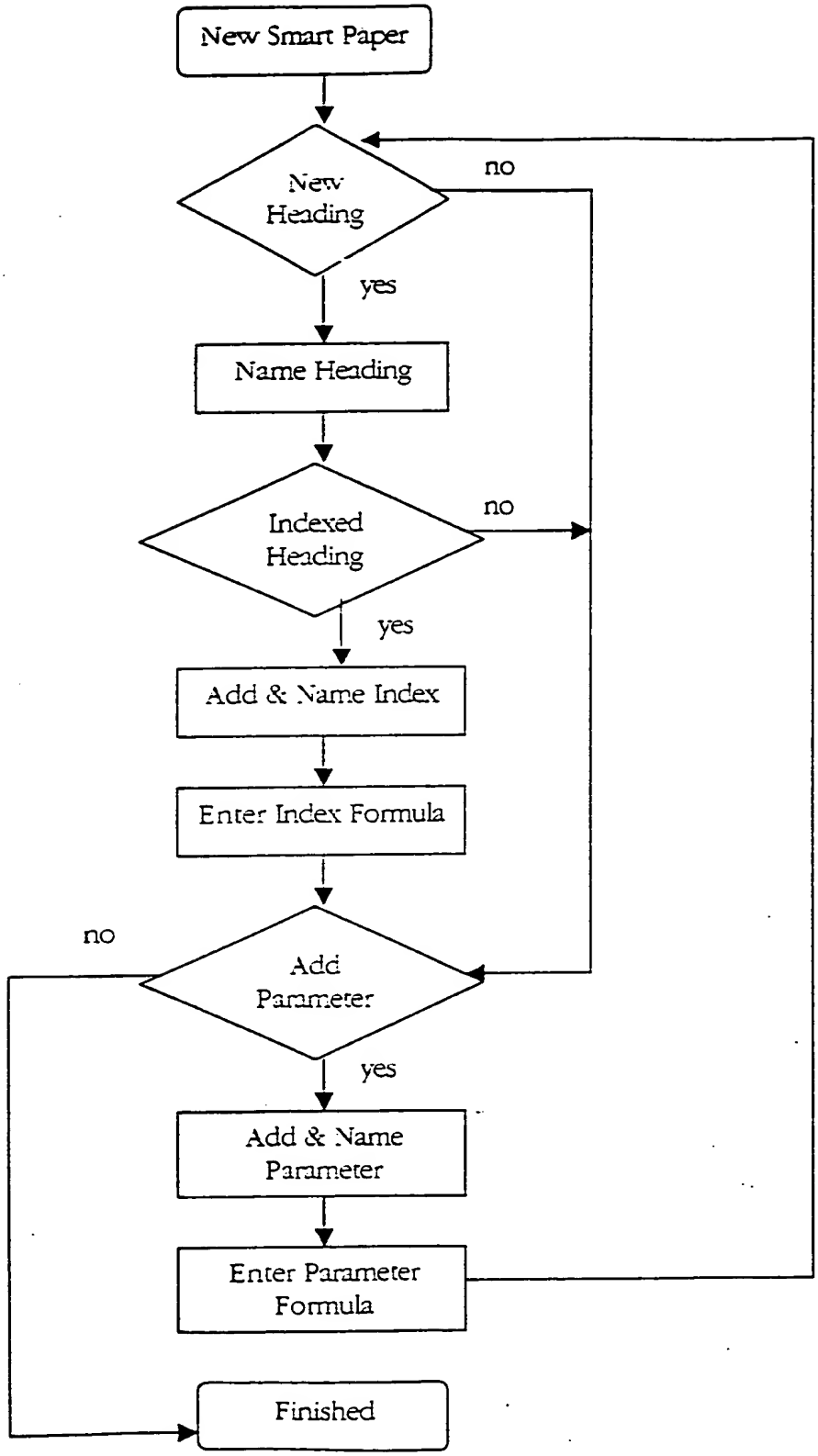

New Smart Paper
New Heading
no
yes
Name Heading
Indexed Heading
no
yes
Add & Name Index
Enter Index Formula
no
Add Parameter
yes
Add & Name Parameter
Enter Parameter Formula
Finished

FIG. 4

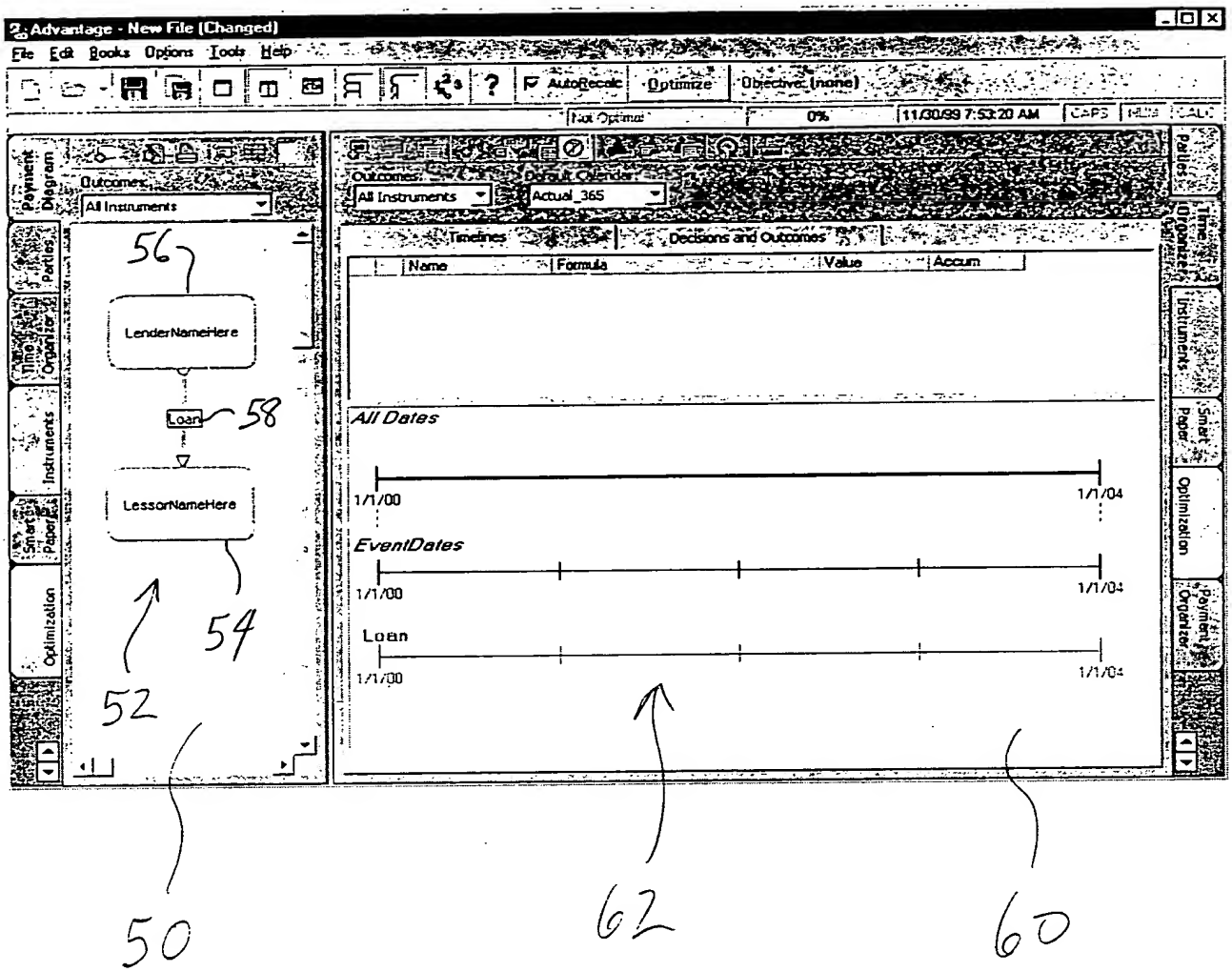

Advantage - New File (Changed)
File Edit Books Options Tools Help
AutoRecalc
Optimize
Objective: (none)
Not Optimal
0%
11/30/99 7:53:20 AM
CAPS
NUM
SCRL
Payment Diagram
Outcomes
All Instruments
Parties
Time Organizer
Instruments
Smart Paper
Optimization
56
LenderNameHere
Loan
58
LessorNameHere
54
52
50
Outcomes
Default Calendar
All Instruments
Actual_365
Timelines
Decisions and Outcomes
Name
Formula
Value
Accum
All Dates
1/1/00
1/1/04
EventDates
1/1/00
1/1/04
Loan
1/1/00
1/1/04
62
60

FIG. 5

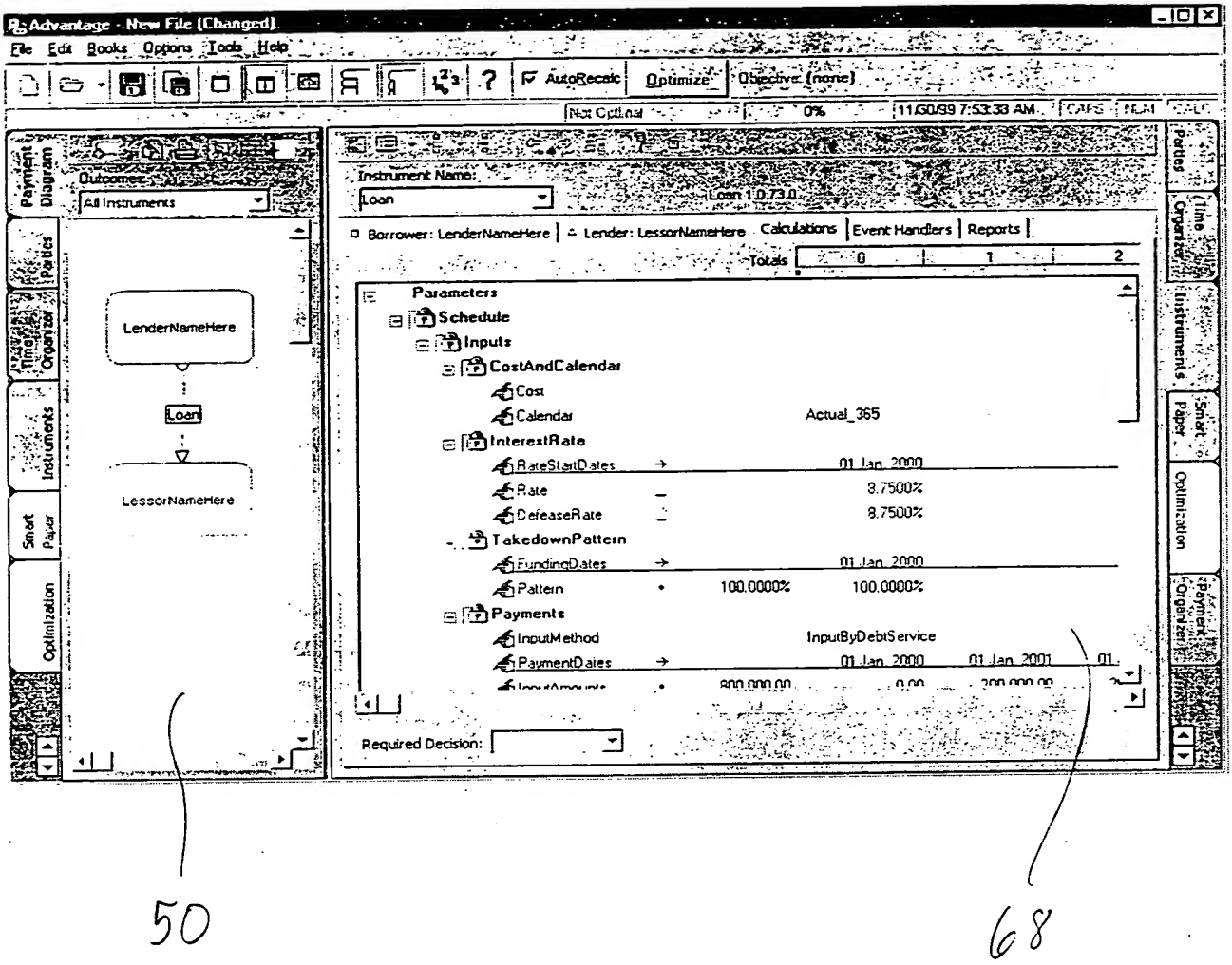

Advantage - New File (Changed)
File Edit Books Options Tools Help
AutoRecalc
Optimize
Objective: (none)
Not Optimal
0%
11/30/99 7:53:33 AM
Payment Diagram
Outcomes:
All Instruments
Parties
Time Organizer
Instruments
Smart Paper
Optimization
LenderNameHere
Loan
LessorNameHere
Instrument Name:
Loan
Loan 1.0.73.0
Borrower: LenderNameHere
Lender: LessorNameHere
Calculations
Event Handlers
Reports
Totals
0
1
2
Parameters
Schedule
Inputs
CostAndCalendar
Cost
Calendar
Actual_365
InterestRate
RateStartDates
01 Jan 2000
Rate
8.7500%
DefeaseRate
8.7500%
TakedownPattern
FundingDates
01 Jan 2000
Pattern
100.0000%
100.0000%
Payments
InputMethod
InputByDebtService
PaymentDates
01 Jan 2000
01 Jan 2001
Required Decision:
50
68

FIG. 6

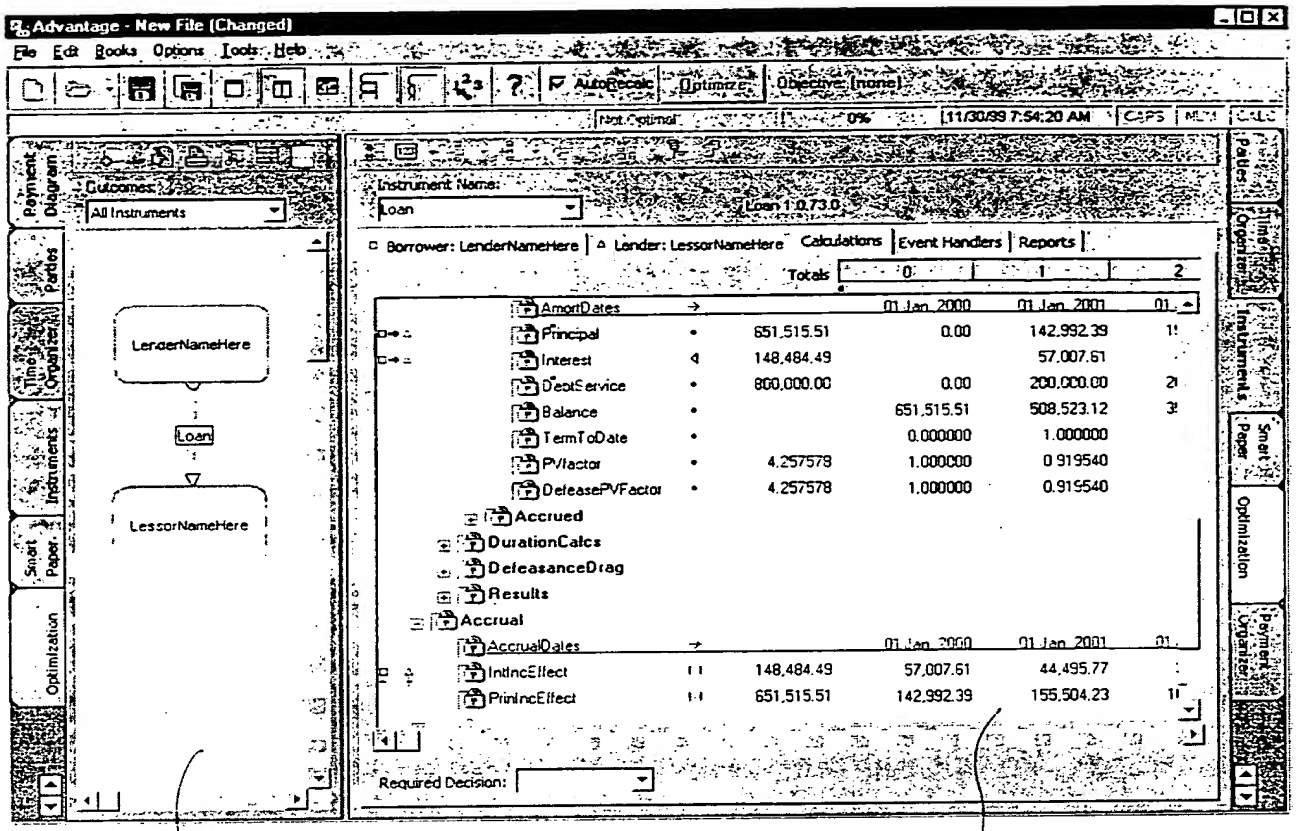

Advantage - New File (Changed)
File Edit Books Options Tools Help
Autoforecast
Optimize
Objective: (none)
Not Optimal
0%
11/30/99 7:54:20 AM
CAPS
NUM
SCRL
Payment Diagram
Outcomes:
All Instruments
Parties
Time & Organizer
Instruments
Smart Paper
Optimization
LenderNameHere
Loan
LessorNameHere
Instrument Name:
Loan
Loan 1:0.73.0
Borrower: LenderNameHere
Lender: LessorNameHere
Calculations
Event Handlers
Reports
Totals
0
1
2
AmortDates
01 Jan 2000
01 Jan 2001
Principal
651,515.51
0.00
142,992.39
Interest
148,484.49
57,007.61
DebtService
800,000.00
0.00
200,000.00
Balance
651,515.51
508,523.12
TermToDate
0.000000
1.000000
PVfactor
4.257578
1.000000
0.919540
DefeasePVFactor
4.257578
1.000000
0.919540
Accrued
DurationCalcs
DefeasanceDrag
Results
Accrual
AccrualDates
01 Jan 2000
01 Jan 2001
IntIncEffect
148,484.49
57,007.61
44,495.77
PrinIncEffect
651,515.51
142,992.39
155,504.23
Required Decision:
50
68

FIG. 7

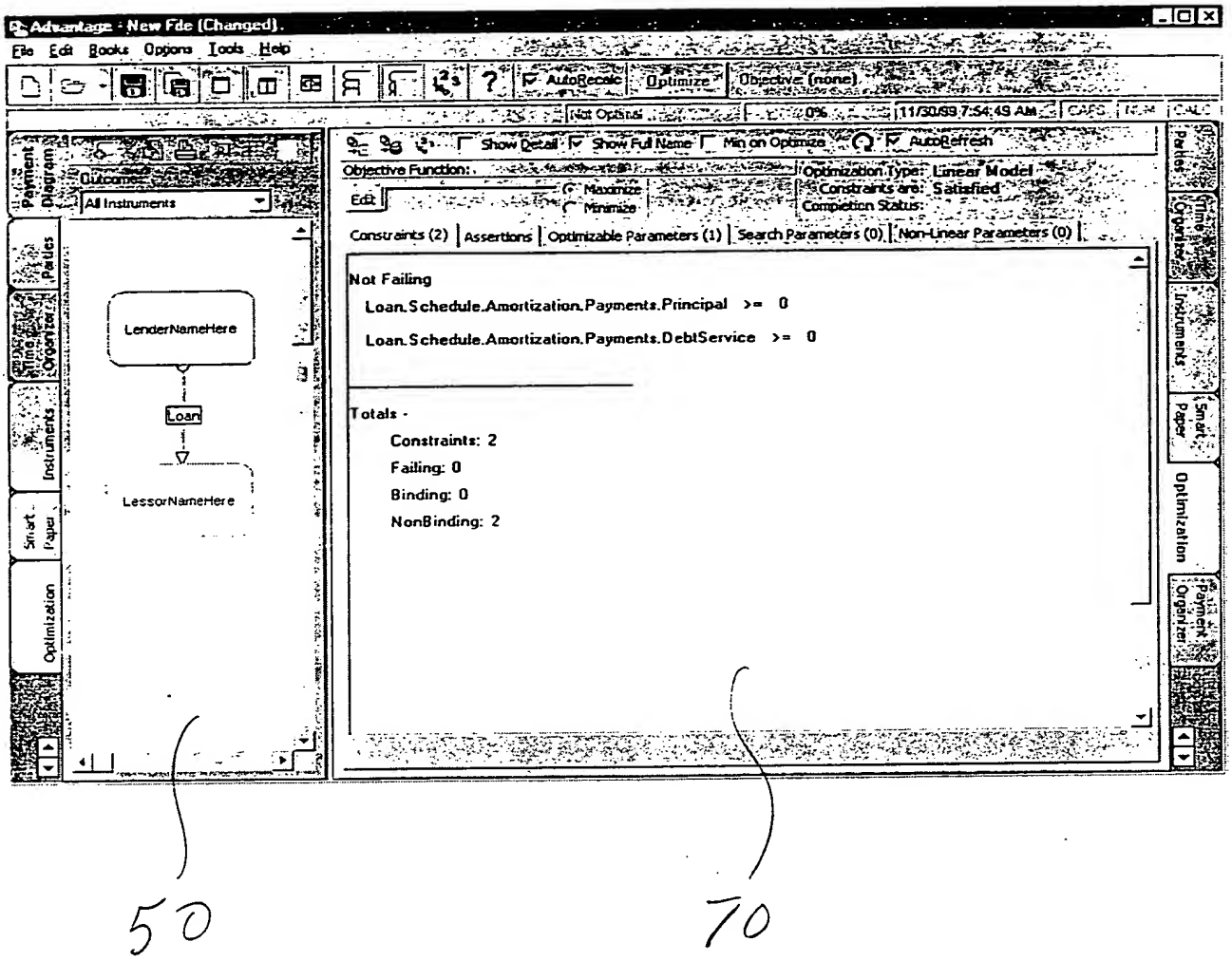

Advantage - New File (Changed)
File Edit Books Options Tools Help
AutoRecalc
Optimize
Objective: (none)
Not Optimal
0%
11/30/99 7:54:49 AM
Show Detail
Show Full Name
Min on Optimize
AutoRefresh
Objective Function:
Maximize
Minimize
Optimization Type: Linear Model
Constraints are: Satisfied
Completion Status:
Edit
Constraints (2)
Assertions
Optimizable Parameters (1)
Search Parameters (0)
Non-Linear Parameters (0)
Not Failing
Loan.Schedule.Amortization.Payments.Principal >= 0
Loan.Schedule.Amortization.Payments.DebtService >= 0
Totals -
Constraints: 2
Failing: 0
Binding: 0
NonBinding: 2
All Instruments
LenderNameHere
Loan
LessorNameHere
Payment Diagram
Outcomes
Parties
Time Organizer
Instruments
Smart Paper
Optimization
50
70

FIG. 8

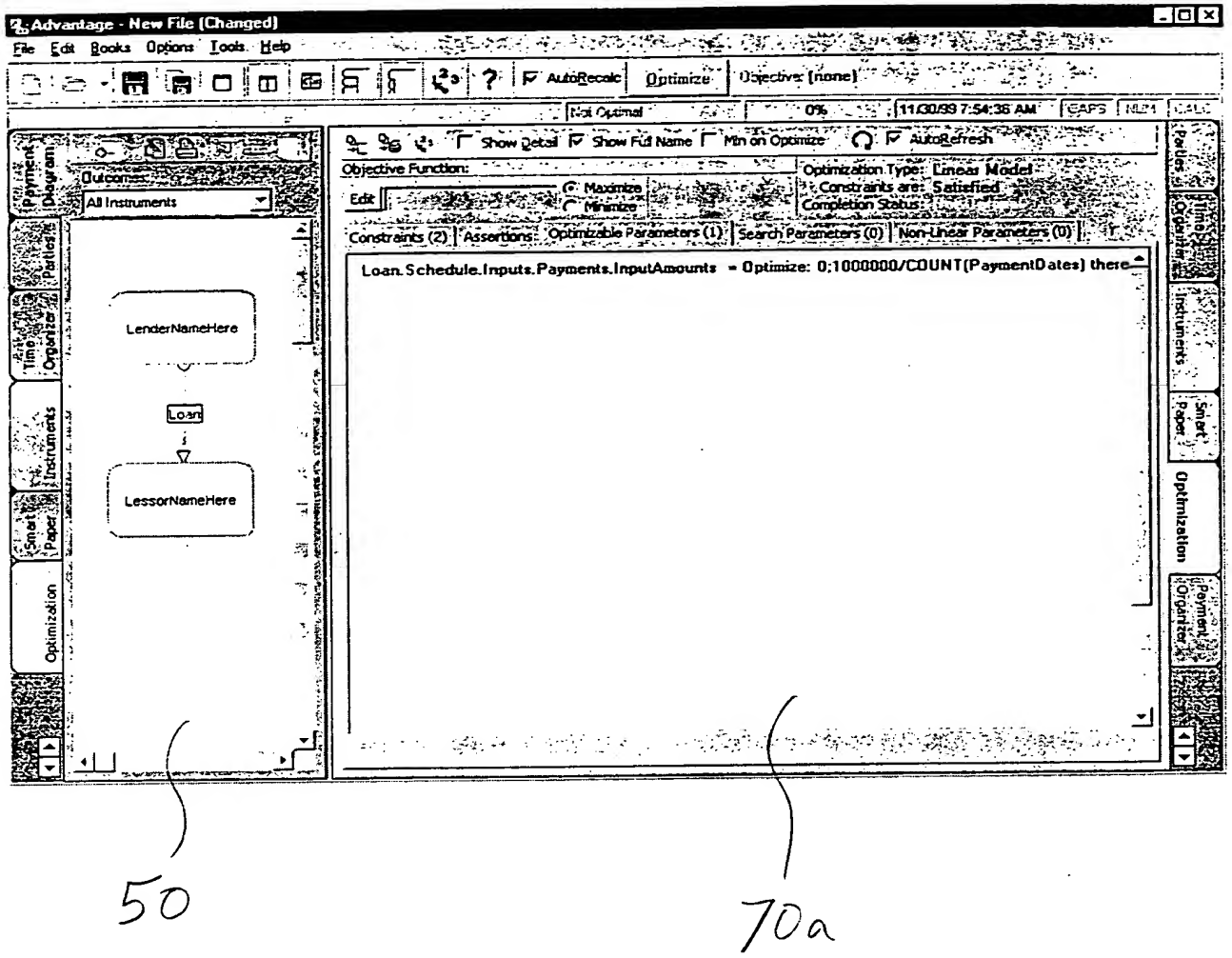

Advantage - New File (Changed)
File Edit Books Options Tools Help
AutoRecalc
Optimize
Objective: (none)
Not Optimal
0%
11/30/99 7:54:36 AM
CAPS
NUM
Show Detail
Show Full Name
Min on Optimize
AutoRefresh
Outcomes
All Instruments
LenderNameHere
Loan
LessorNameHere
Objective Function:
Edit
Maximize
Minimize
Optimization Type: Linear Model
Constraints are: Satisfied
Completion Status:
Constraints (2)
Assertions
Optimizable Parameters (1)
Search Parameters (0)
Non-Linear Parameters (0)
Loan.Schedule.Inputs.Payments.InputAmounts = Optimize: 0;1000000/COUNT(PaymentDates) there
Payment Diagram
Time Value Organizer
Smart Paper
Optimization
Instruments
Payment Organizer
50
70a

FIG. 9

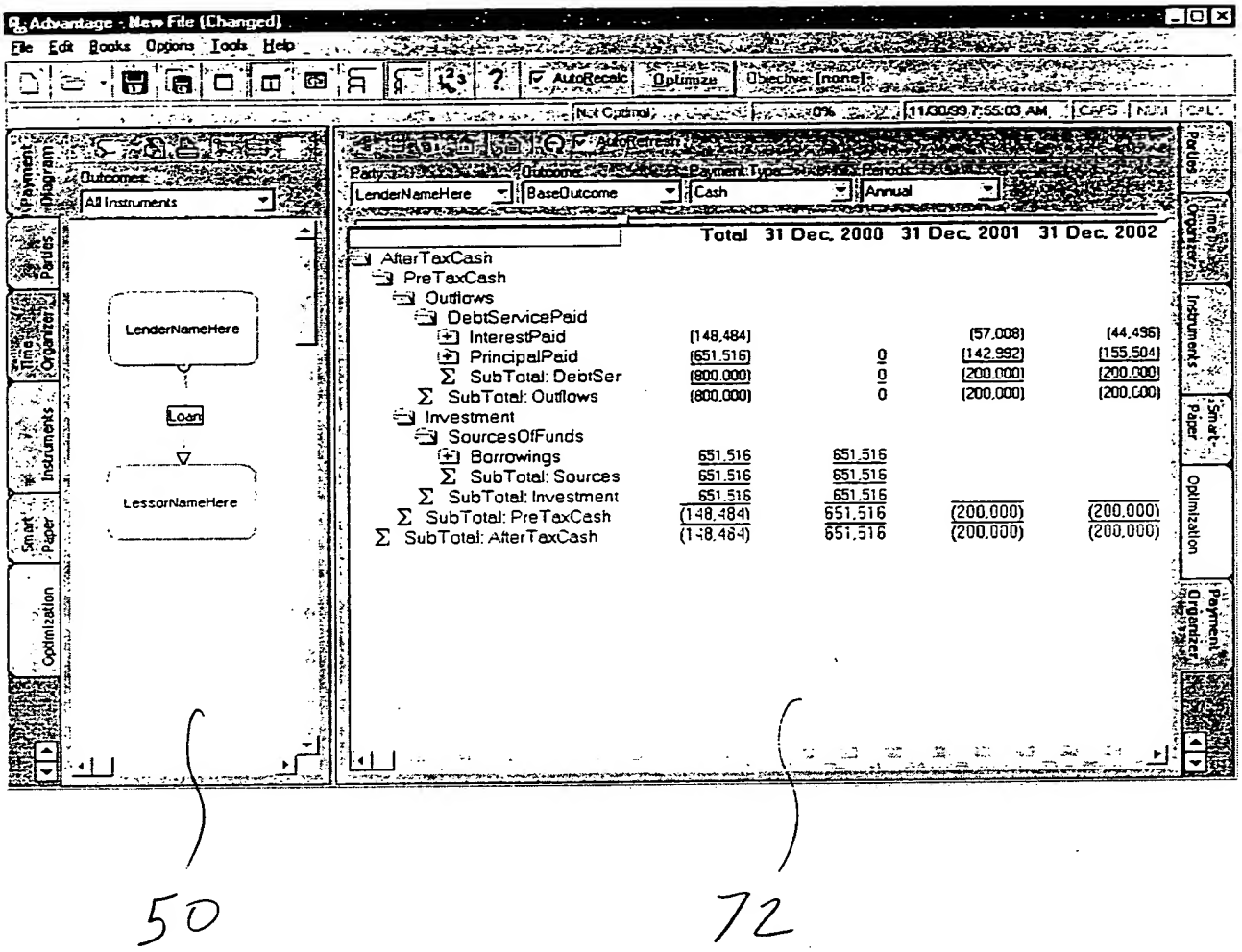

Advantage - New File (Changed)
File Edit Books Options Tools Help
AutoRecalc
Optimize
Objective: [none]
Not Optimal
0%
11/30/99 7:55:03 AM
CAPS
NUM
SCRL
Payment Diagram
Outcomes
All Instruments
Parties
Time & Organizer
Instruments
Smart Paper
Optimization
LenderNameHere
Loan
LessorNameHere
AutoRefresh
Party
Outcome
Payment Type
Period
LenderNameHere
BaseOutcome
Cash
Annual
Total
31 Dec. 2000
31 Dec. 2001
31 Dec. 2002
AfterTaxCash
PreTaxCash
Outflows
DebtServicePaid
InterestPaid (148,484) (57,008) (44,496)
PrincipalPaid (651,516) 0 (142,992) (155,504)
SubTotal: DebtSer (800,000) 0 (200,000) (200,000)
SubTotal: Outflows (800,000) 0 (200,000) (200,000)
Investment
SourcesOfFunds
Borrowings 651,516 651,516
SubTotal: Sources 651,516 651,516
SubTotal: Investment 651,516 651,516
SubTotal: PreTaxCash (148,484) 651,516 (200,000) (200,000)
SubTotal: AfterTaxCash (148,484) 651,516 (200,000) (200,000)
50
72

FIG. 10

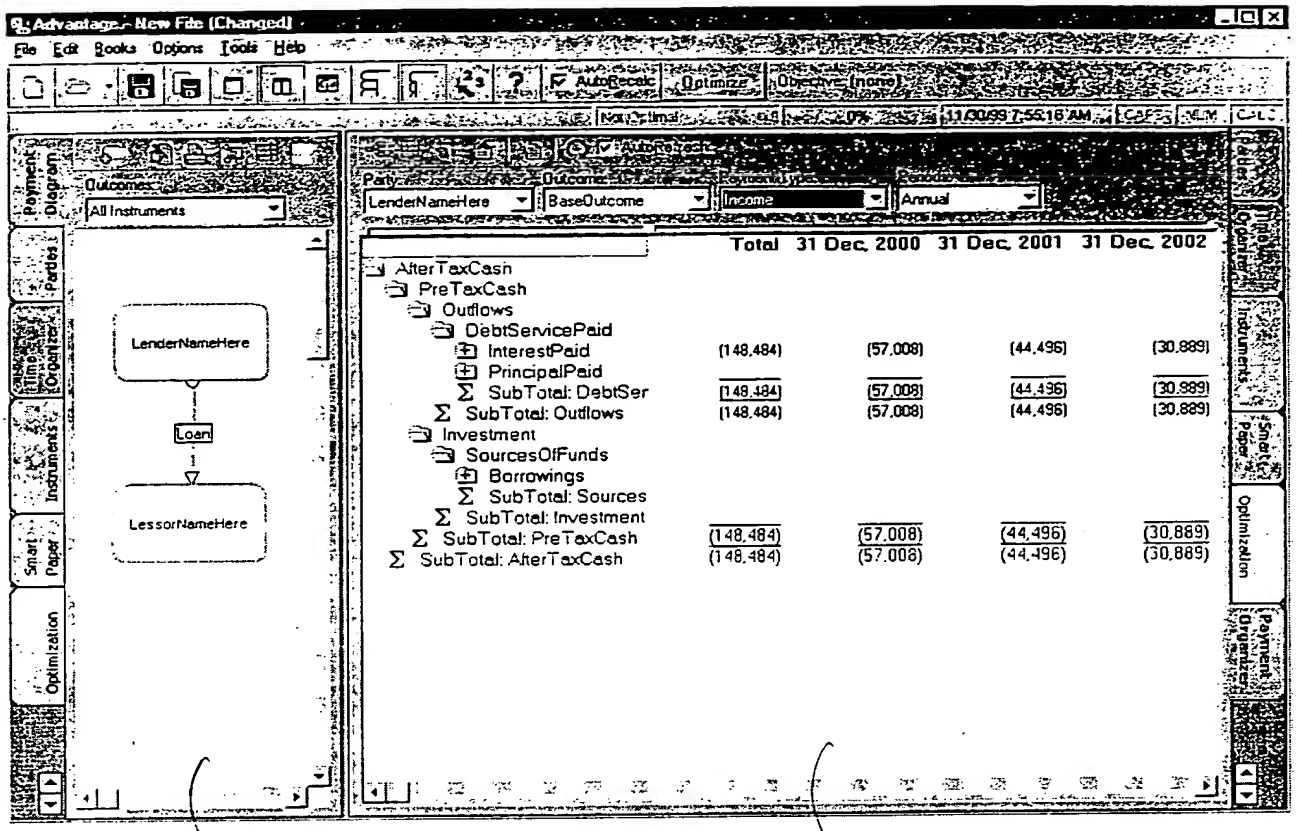

Advantage - New File (Changed)
File Edit Books Options Tools Help
AutoRecalc
Optimize
Objective: (none)
All Instruments
LenderNameHere
Loan
LessorNameHere
LenderNameHere
BaseOutcome
Income
Annual
Total
31 Dec. 2000
31 Dec. 2001
31 Dec. 2002
AfterTaxCash
PreTaxCash
Outflows
DebtServicePaid
InterestPaid (148,484) (57,008) (44,496) (30,889)
PrincipalPaid
SubTotal: DebtSer (148,484) (57,008) (44,496) (30,889)
SubTotal: Outflows (148,484) (57,008) (44,496) (30,889)
Investment
SourcesOfFunds
Borrowings
SubTotal: Sources
SubTotal: Investment
SubTotal: PreTaxCash (148,484) (57,008) (44,496) (30,889)
SubTotal: AfterTaxCash (148,484) (57,008) (44,496) (30,889)
50
72

FIG. 11

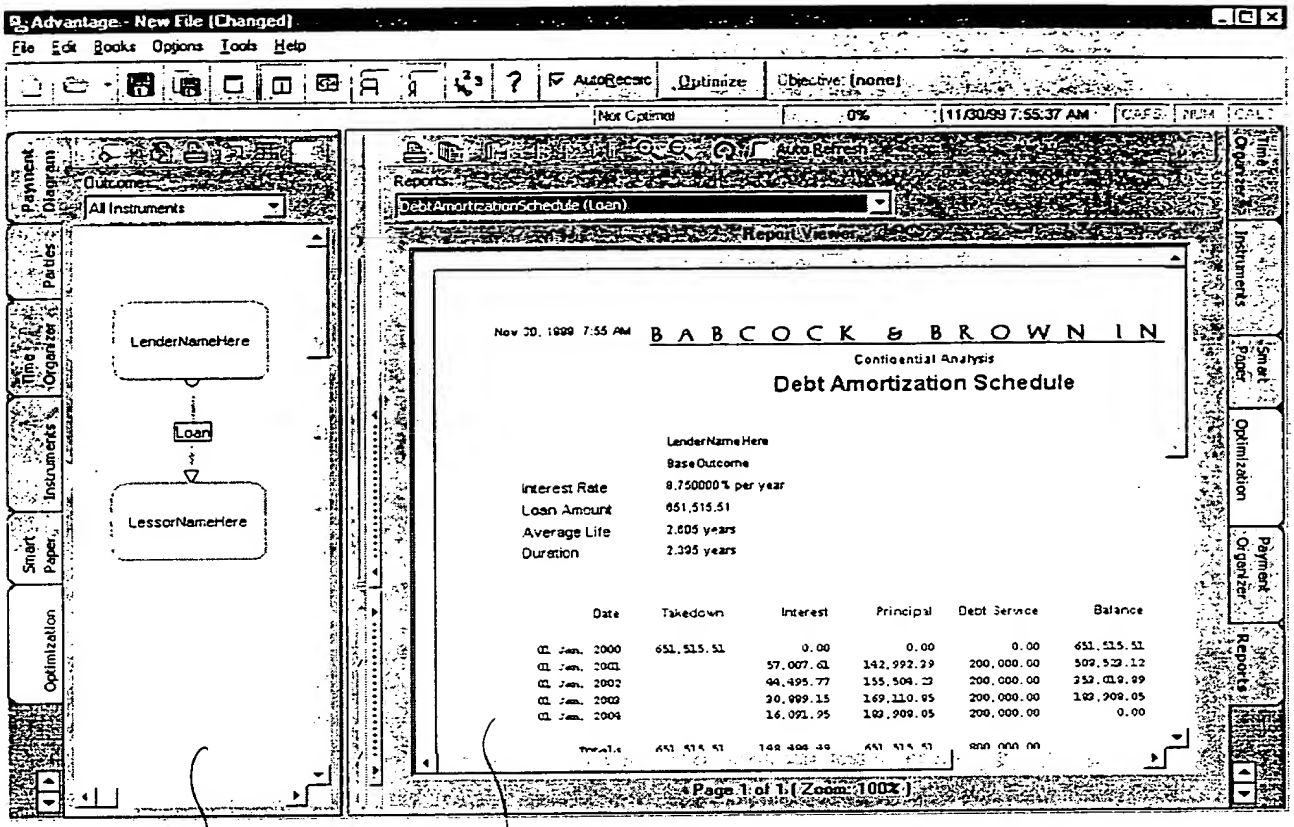

Advantage - New File [Changed]
File Edit Books Options Tools Help
AutoRecalc
Optimize
Objective: (none)
Not Optimal
0%
11/30/99 7:55:37 AM
Outcome:
All Instruments
LenderNameHere
Loan
LessorNameHere
Reports:
DebtAmortizationSchedule (Loan)
Report Viewer
Nov 30, 1999 7:55 AM
BABCOCK & BROWN IN
Confidential Analysis
Debt Amortization Schedule
LenderNameHere
BaseOutcome
Interest Rate 8.750000 % per year
Loan Amount 651,515.51
Average Life 2.605 years
Duration 2.395 years
Date Takedown Interest Principal Debt Service Balance
01 Jan. 2000 651,515.51 0.00 0.00 0.00 651,515.51
01 Jan. 2001 57,007.61 142,992.39 200,000.00 508,523.12
01 Jan. 2002 44,495.77 155,504.23 200,000.00 353,018.89
01 Jan. 2003 30,889.15 169,110.85 200,000.00 183,908.05
01 Jan. 2004 16,091.95 183,908.05 200,000.00 0.00
Page 1 of 1 (Zoom: 100%)
50
74

FIG. 12

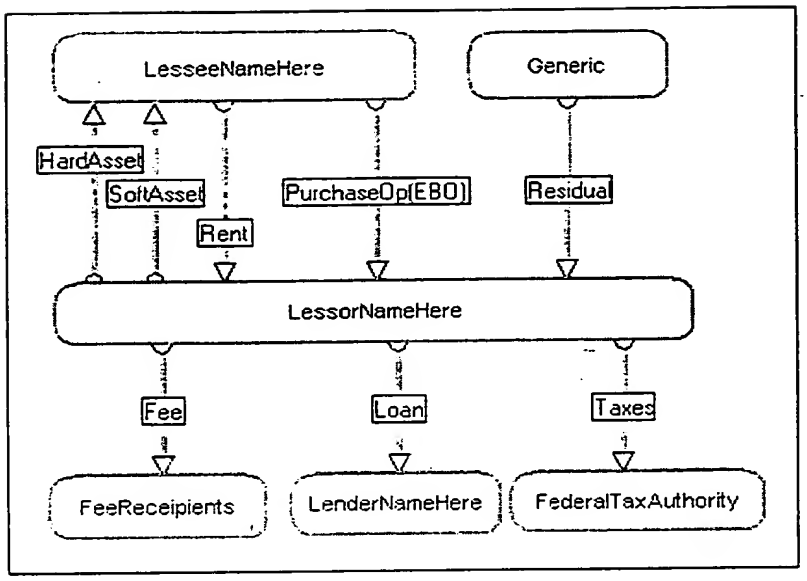

LesseeNameHere
Generic
HardAsset
SoftAsset
Rent
PurchaseOp(EBO)
Residual
LessorNameHere
Fee
Loan
Taxes
FeeReceipients
LenderNameHere
FederalTaxAuthority

FIG. 13

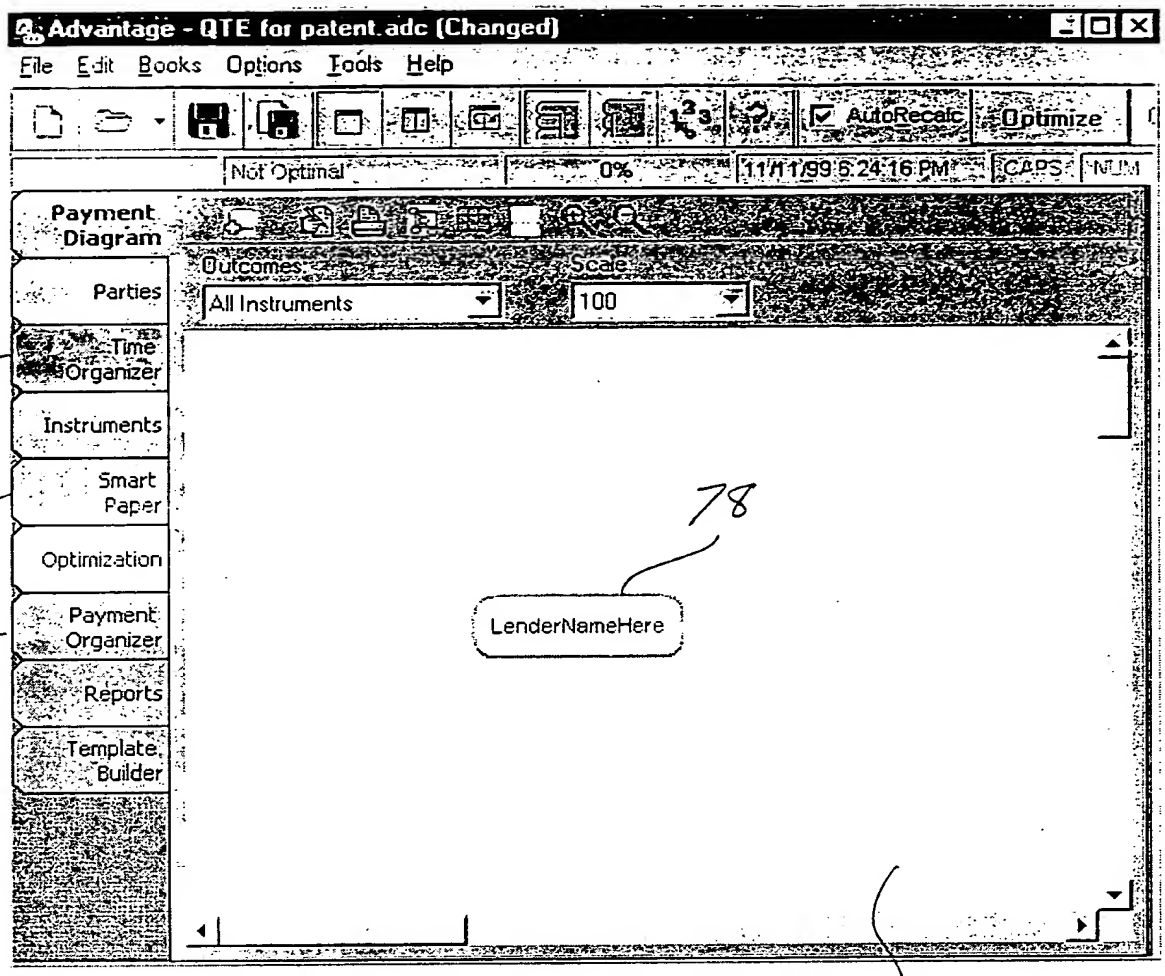

Advantage - QTE for patent.adc (Changed)
File Edit Books Options Tools Help
AutoRecalc
Optimize
Not Optimal
0%
11/11/99 5:24:16 PM
CAPS
NUM
Payment Diagram
Parties
Time Organizer
Instruments
Smart Paper
Optimization
Payment Organizer
Reports
Template Builder
Outcomes
Scale
All Instruments
100
LenderNameHere
76
78
50

FIG. 14

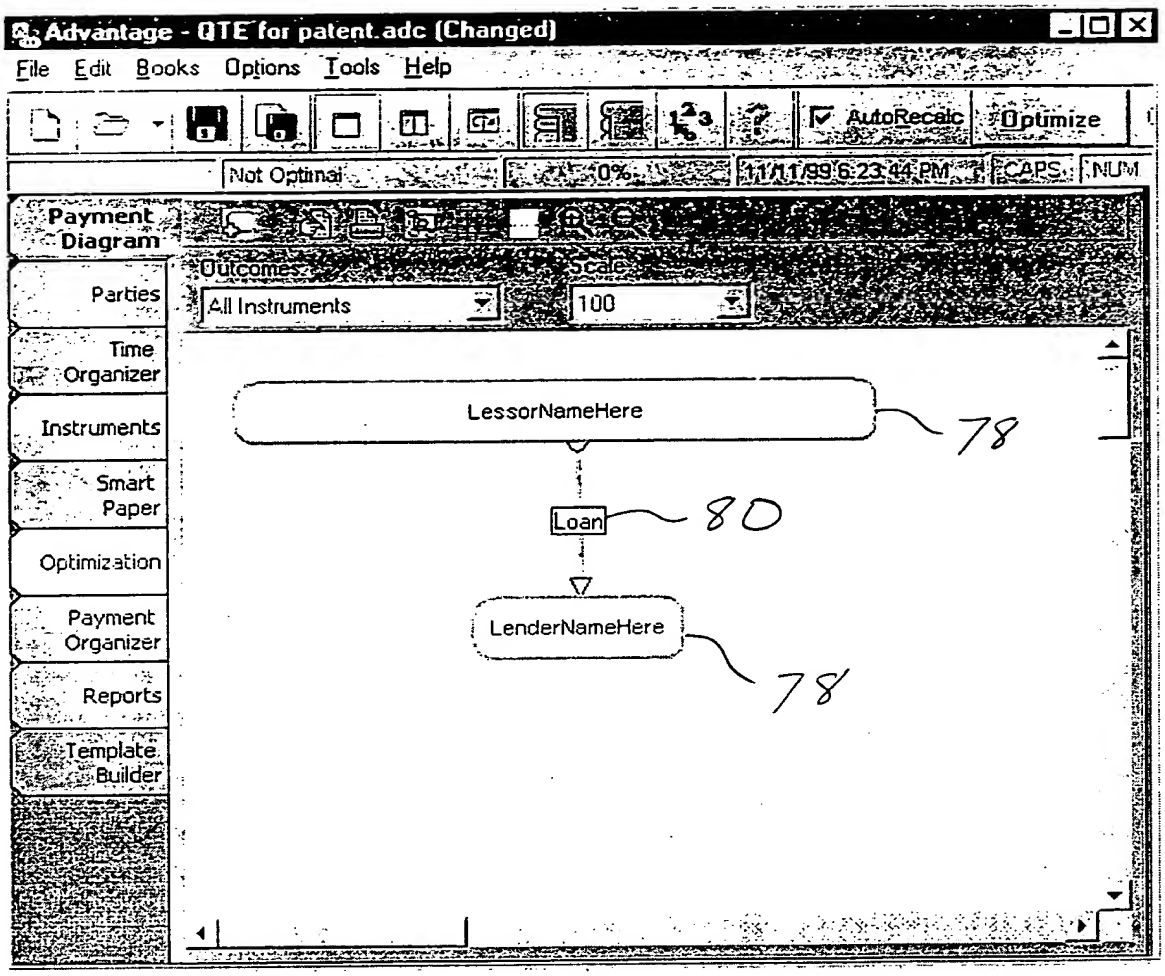

Advantage - QTE for patent.adc (Changed)
File Edit Books Options Tools Help
AutoRecalc
Optimize
Not Optimal
0%
11/11/99 6:23:44 PM
CAPS
NUM
Payment Diagram
Parties
Time Organizer
Instruments
Smart Paper
Optimization
Payment Organizer
Reports
Template Builder
Outcomes
Scale
All Instruments
100
LessorNameHere
78
Loan
80
LenderNameHere
78

FIG. 15

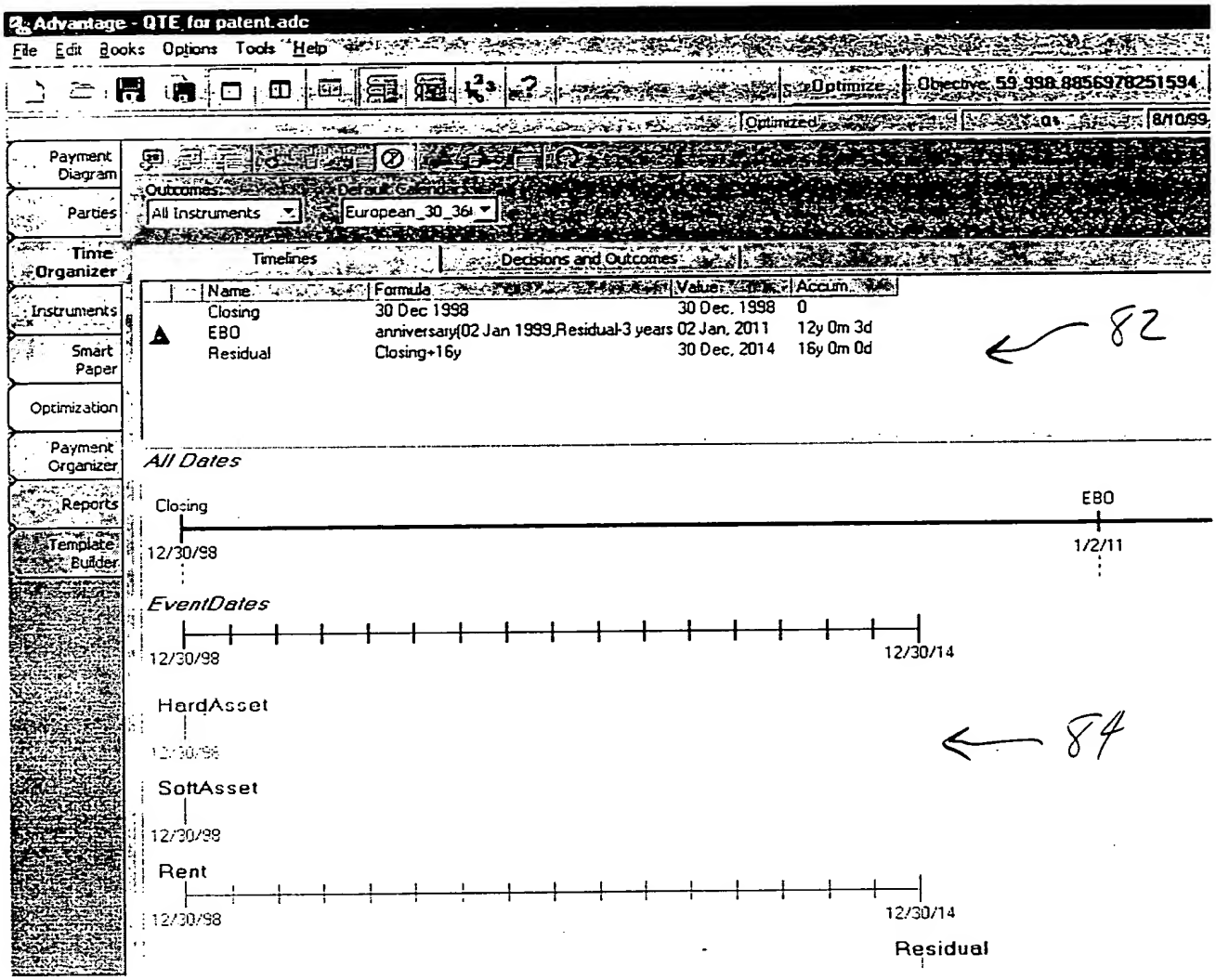

Advantage - QTE for patent.adc
File Edit Books Options Tools Help
Optimize
Objective: 59.998.8856978251594
Optimized
8/10/99
Payment Diagram
Parties
Time Organizer
Instruments
Smart Paper
Optimization
Payment Organizer
Reports
Template Builder
Outcomes:
All Instruments
European_30_36
Timelines
Decisions and Outcomes
Name
Formula
Value
Accum.
Closing
30 Dec 1998
30 Dec, 1998
0
EBO
anniversary(02 Jan 1999,Residual-3 years
02 Jan, 2011
12y 0m 3d
Residual
Closing+16y
30 Dec, 2014
16y 0m 0d
82
All Dates
Closing
EBO
12/30/98
1/2/11
EventDates
12/30/98
12/30/14
HardAsset
SoftAsset
12/30/98
Rent
12/30/98
12/30/14
Residual
84

FIG. 16

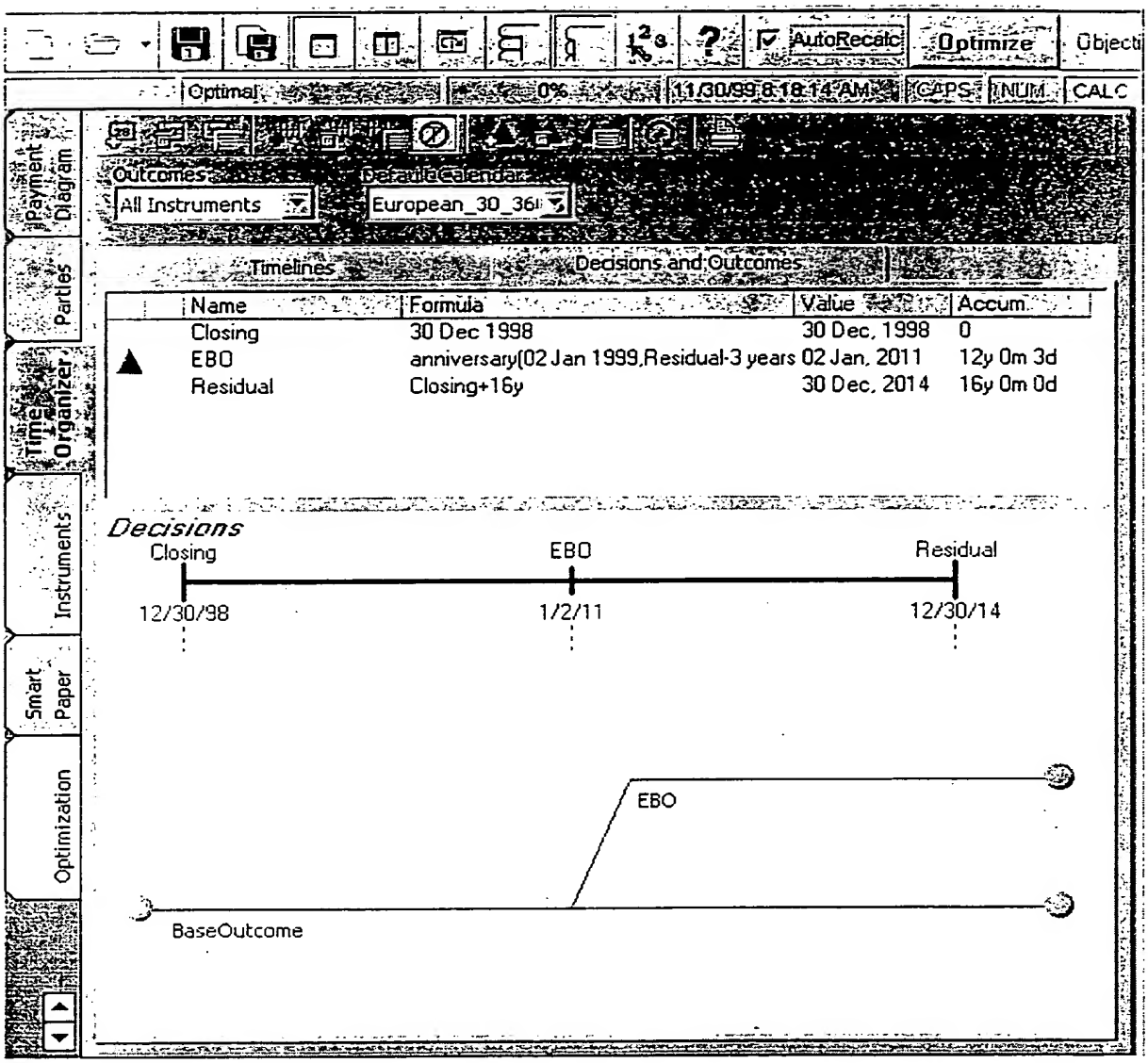

AutoRecalc
Optimize
Optimal
0%
11/30/99 8:18:14 AM
CAPS
NUM
CALC
Payment Diagram
Parties
Timeline Organizer
Instruments
Smart Paper
Optimization
Outcomes
Default Calendar
All Instruments
European_30_36
Timelines
Decisions and Outcomes
Name
Formula
Value
Accum
Closing
30 Dec 1998
30 Dec, 1998
0
EBO
anniversary(02 Jan 1999,Residual-3 years
02 Jan, 2011
12y 0m 3d
Residual
Closing+16y
30 Dec, 2014
16y 0m 0d
Decisions
Closing
EBO
Residual
12/30/98
1/2/11
12/30/14
EBO
BaseOutcome

FIG. 17

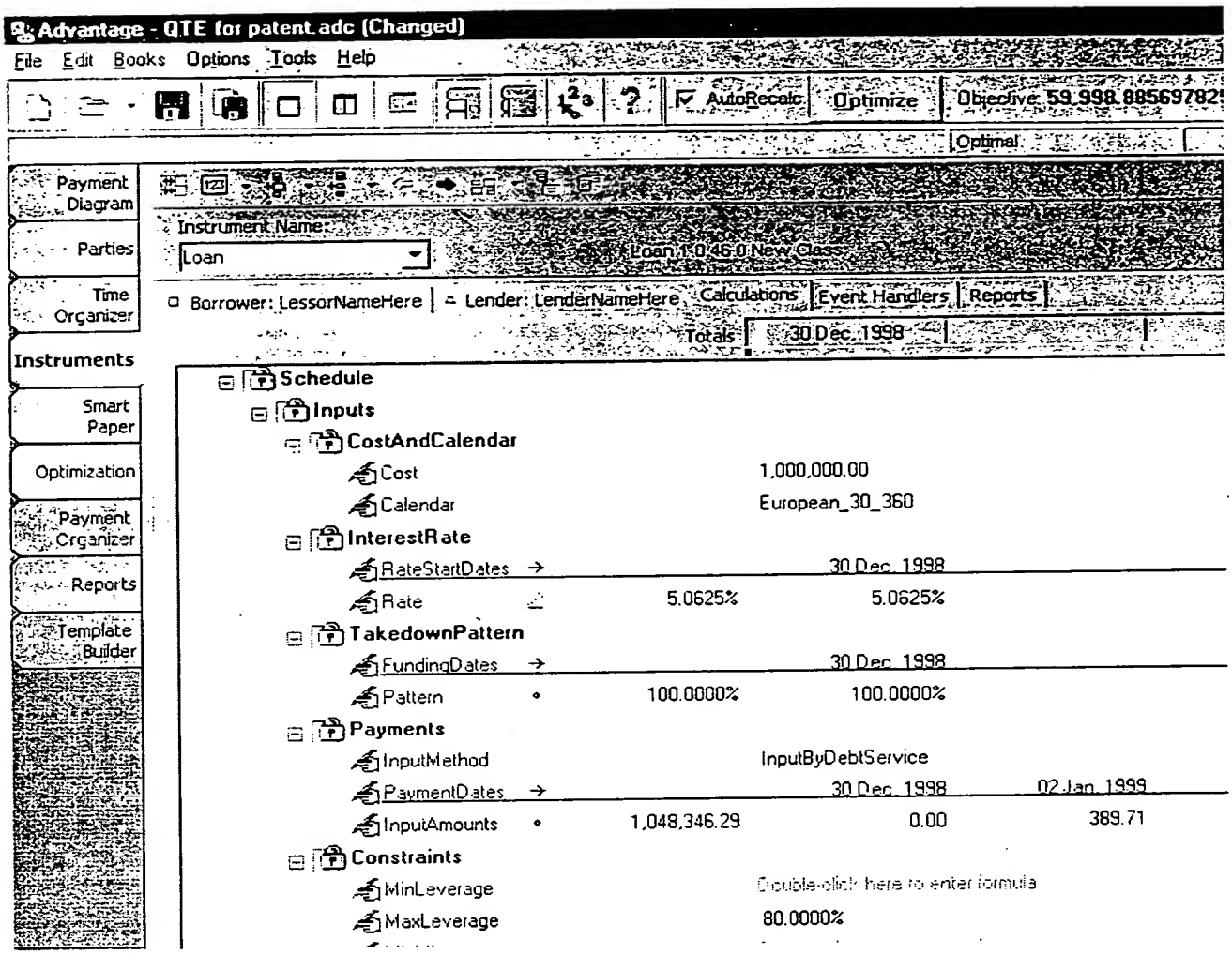

Advantage - QTE for patent.adc (Changed)
File Edit Books Options Tools Help
AutoRecalc
Optimize
Objective 59.998.88569782
Optimal
Payment Diagram
Parties
Time Organizer
Instruments
Smart Paper
Optimization
Payment Organizer
Reports
Template Builder
Instrument Name:
Loan
Loan 1.0.46.0 New Class
Borrower: LessorNameHere
Lender: LenderNameHere
Calculations
Event Handlers
Reports
Totals
30 Dec 1998
Schedule
Inputs
CostAndCalendar
Cost 1,000,000.00
Calendar European_30_360
InterestRate
RateStartDates → 30 Dec 1998
Rate 5.0625% 5.0625%
TakedownPattern
FundingDates → 30 Dec 1998
Pattern 100.0000% 100.0000%
Payments
InputMethod InputByDebtService
PaymentDates → 30 Dec 1998 02 Jan 1999
InputAmounts 1,048,346.29 0.00 389.71
Constraints
MinLeverage Double-click here to enter formula
MaxLeverage 80.0000%

FIG. 18

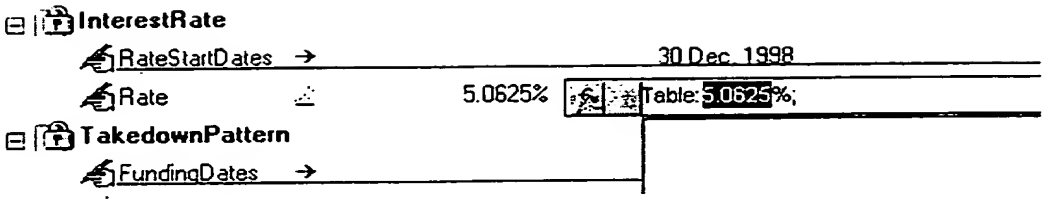


FIG. 19

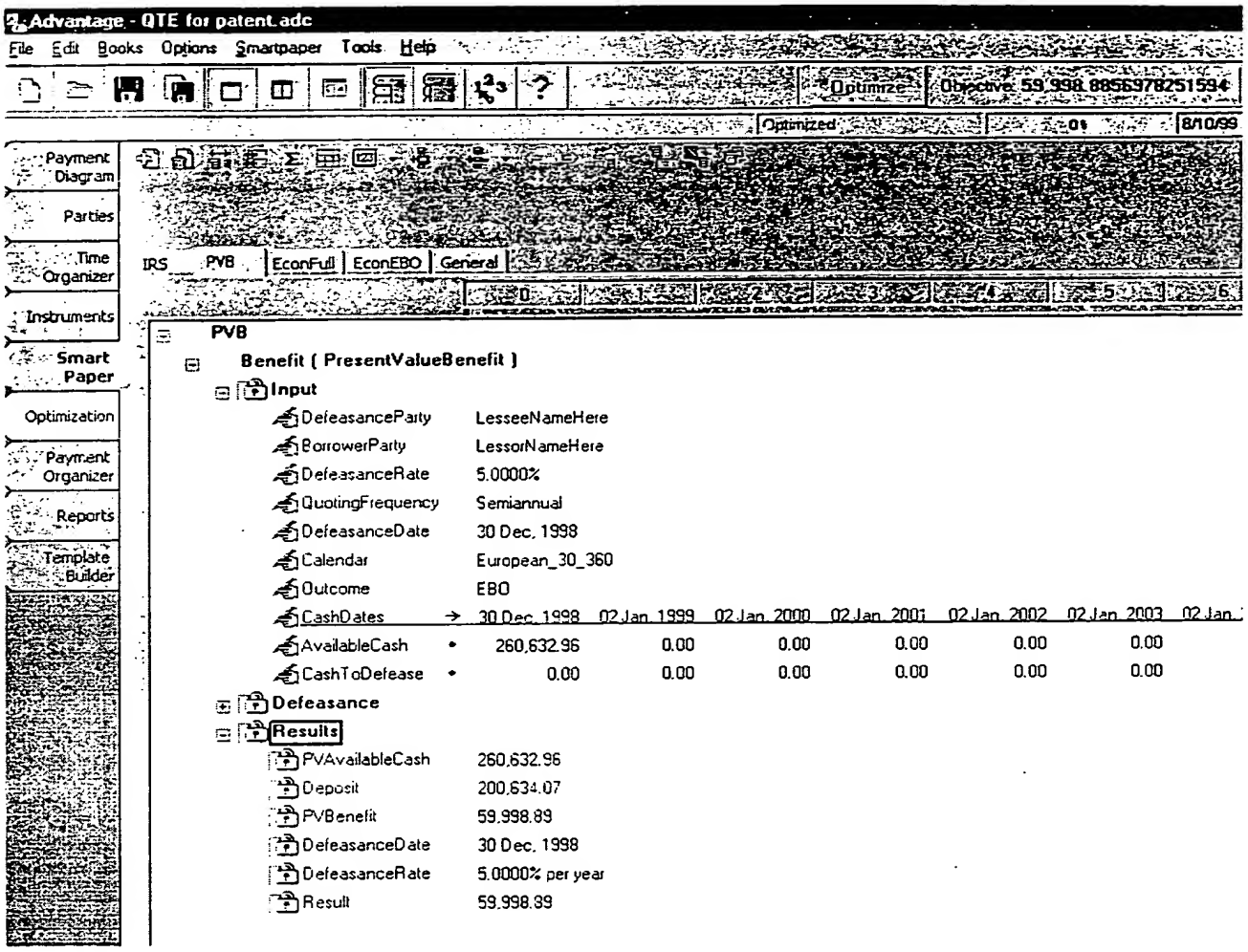

Advantage - QTE for patent.adc
File Edit Books Options Smartpaper Tools Help
Optimize
Objective: 59,998.88569782515946
Optimized
0%
8/10/99
Payment Diagram
Parties
Time Organizer
Instruments
Smart Paper
Optimization
Payment Organizer
Reports
Template Builder
IRS
PVB
EconFull
EconEBO
General
PVB
Benefit (PresentValueBenefit)
Input
DefeasanceParty LesseeNameHere
BorrowerParty LessorNameHere
DefeasanceRate 5.0000%
QuotingFrequency Semiannual
DefeasanceDate 30 Dec, 1998
Calendar European_30_360
Outcome EBO
CashDates → 30 Dec, 1998 02 Jan, 1999 02 Jan, 2000 02 Jan, 2001 02 Jan, 2002 02 Jan, 2003 02 Jan,
AvailableCash • 260,632.96 0.00 0.00 0.00 0.00 0.00
CashToDefease • 0.00 0.00 0.00 0.00 0.00 0.00
Defeasance
Results
PVAvailableCash 260,632.96
Deposit 200,634.07
PVBenefit 59,998.89
DefeasanceDate 30 Dec, 1998
DefeasanceRate 5.0000% per year
Result 59,998.89

FIG. 20

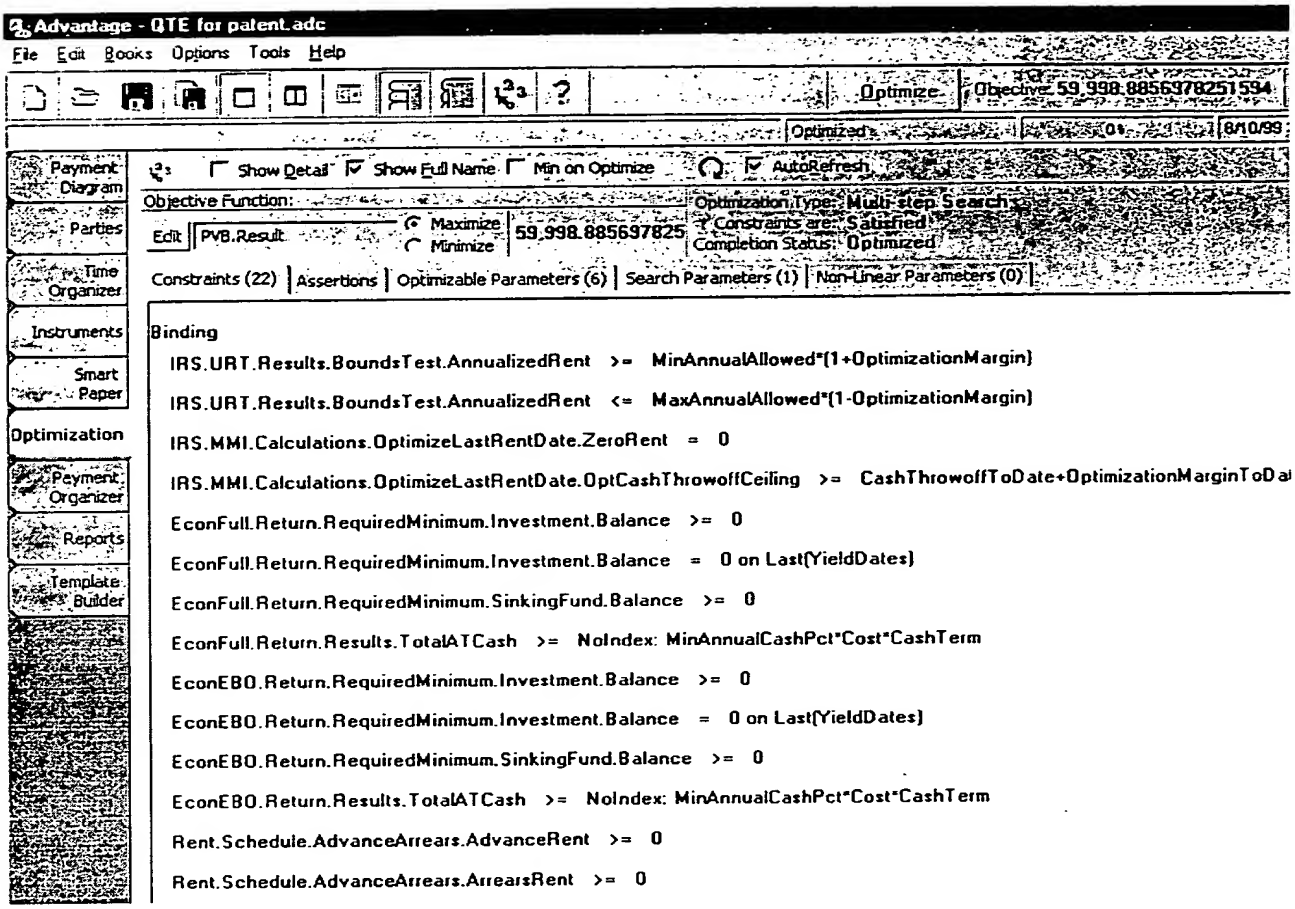

Advantage - QTE for patent.adc
File Edit Books Options Tools Help
Optimize
Objective: 59,998.8856978251594
Optimized
0%
8/10/99
Payment Diagram
Parties
Time Organizer
Instruments
Smart Paper
Optimization
Payment Organizer
Reports
Template Builder
Show Detail
Show Full Name
Min on Optimize
AutoRefresh
Objective Function:
Optimization Type: Multi-step Search
Edit
PVB.Result
Maximize
Minimize
59,998.885697825
Constraints are: Satisfied
Completion Status: Optimized
Constraints (22)
Assertions
Optimizable Parameters (6)
Search Parameters (1)
Non-Linear Parameters (0)
Binding
IRS.URT.Results.BoundsTest.AnnualizedRent >= MinAnnualAllowed*(1+OptimizationMargin)
IRS.URT.Results.BoundsTest.AnnualizedRent <= MaxAnnualAllowed*(1-OptimizationMargin)
IRS.MMI.Calculations.OptimizeLastRentDate.ZeroRent = 0
IRS.MMI.Calculations.OptimizeLastRentDate.OptCashThrowoffCeiling >= CashThrowoffToDate+OptimizationMarginToDa
EconFull.Return.RequiredMinimum.Investment.Balance >= 0
EconFull.Return.RequiredMinimum.Investment.Balance = 0 on Last(YieldDates)
EconFull.Return.RequiredMinimum.SinkingFund.Balance >= 0
EconFull.Return.Results.TotalATCash >= NoIndex: MinAnnualCashPct*Cost*CashTerm
EconEBO.Return.RequiredMinimum.Investment.Balance >= 0
EconEBO.Return.RequiredMinimum.Investment.Balance = 0 on Last(YieldDates)
EconEBO.Return.RequiredMinimum.SinkingFund.Balance >= 0
EconEBO.Return.Results.TotalATCash >= NoIndex: MinAnnualCashPct*Cost*CashTerm
Rent.Schedule.AdvanceArrears.AdvanceRent >= 0
Rent.Schedule.AdvanceArrears.ArrearsRent >= 0

FIG. 21

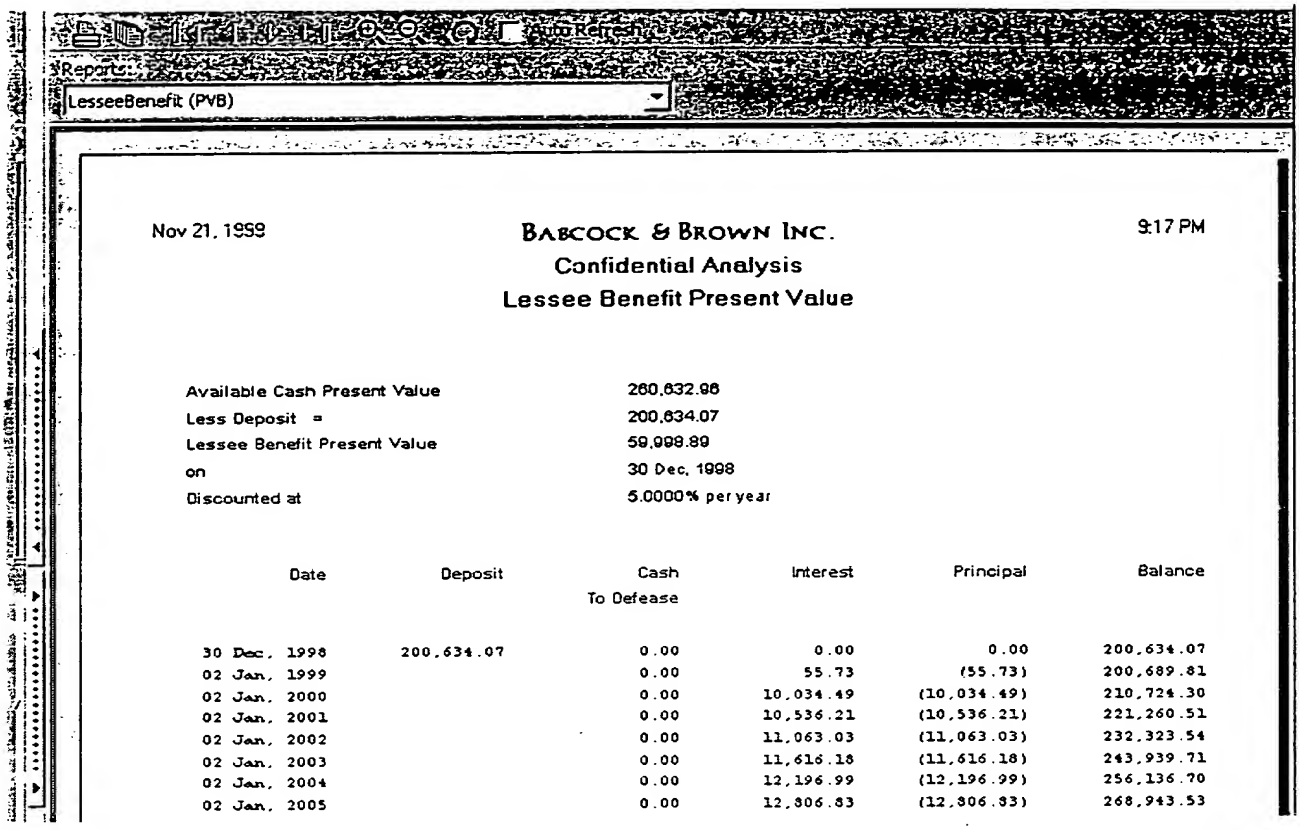
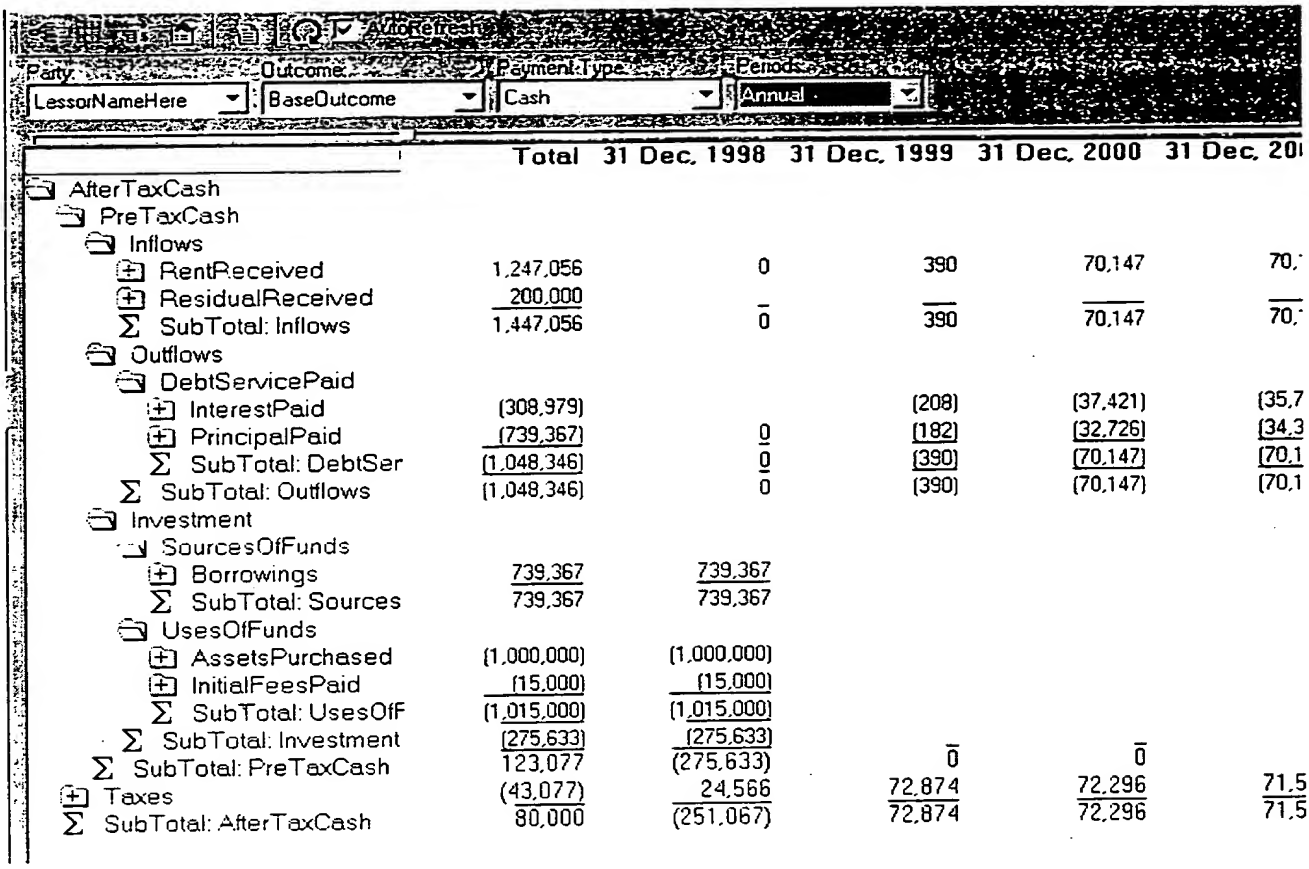

Reports
LesseeBenefit (PVB)
Nov 21, 1999
BABCOCK & BROWN INC.
Confidential Analysis
Lessee Benefit Present Value
9:17 PM
Available Cash Present Value 260,632.96
Less Deposit = 200,634.07
Lessee Benefit Present Value 59,998.89
on 30 Dec, 1998
Discounted at 5.0000% per year
Date Deposit Cash To Defease Interest Principal Balance
30 Dec, 1998 200,634.07 0.00 0.00 0.00 200,634.07
02 Jan, 1999 0.00 55.73 (55.73) 200,689.81
02 Jan, 2000 0.00 10,034.49 (10,034.49) 210,724.30
02 Jan, 2001 0.00 10,536.21 (10,536.21) 221,260.51
02 Jan, 2002 0.00 11,063.03 (11,063.03) 232,323.54
02 Jan, 2003 0.00 11,616.18 (11,616.18) 243,939.71
02 Jan, 2004 0.00 12,196.99 (12,196.99) 256,136.70
02 Jan, 2005 0.00 12,806.83 (12,806.83) 268,943.53

FIG. 22



	Total	31 Dec. 1998	31 Dec. 1999	31 Dec. 2000	31 Dec. 20
AfterTaxCash					
PreTaxCash					
Inflows					
RentReceived	1,247,056	0	390	70,147	70,
ResidualReceived	200,000				
Σ SubTotal: Inflows	1,447,056	0	390	70,147	70,
Outflows					
DebtServicePaid					
InterestPaid	(308,979)		(208)	(37,421)	(35,7
PrincipalPaid	(739,367)	0	(182)	(32,726)	(34,3
Σ SubTotal: DebtSer	(1,048,346)	0	(390)	(70,147)	(70,1
Σ SubTotal: Outflows	(1,048,346)	0	(390)	(70,147)	(70,1
Investment					
SourcesOfFunds					
Borrowings	739,367	739,367			
Σ SubTotal: Sources	739,367	739,367			
UsesOfFunds					
AssetsPurchased	(1,000,000)	(1,000,000)			
InitialFeesPaid	(15,000)	(15,000)			
Σ SubTotal: UsesOfF	(1,015,000)	(1,015,000)			
Σ SubTotal: Investment	(275,633)	(275,633)			
Σ SubTotal: PreTaxCash	123,077	(275,633)	0	0	
Taxes	(43,077)	24,566	72,874	72,296	71,5
Σ SubTotal: AfterTaxCash	80,000	(251,067)	72,874	72,296	71,5

FIG. 23

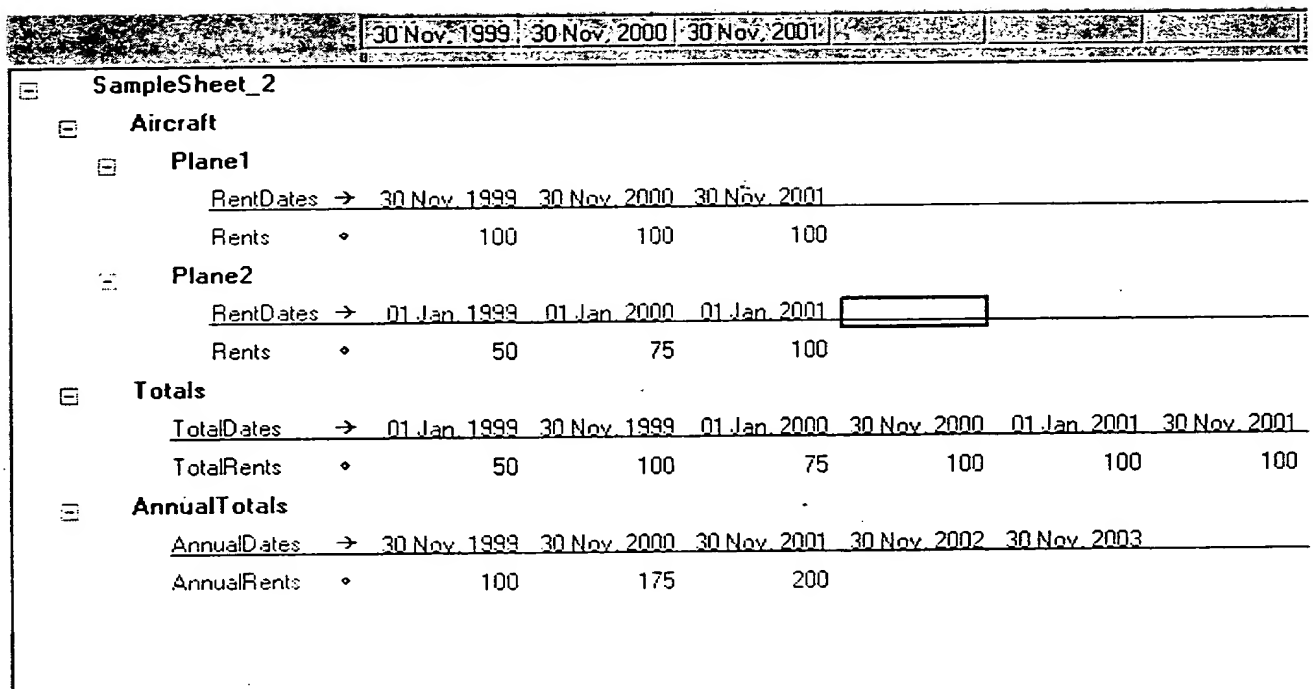

30 Nov, 1999
30 Nov, 2000
30 Nov, 2001
SampleSheet_2
Aircraft
Plane1
RentDates → 30 Nov, 1999 30 Nov, 2000 30 Nov, 2001
Rents • 100 100 100
Plane2
RentDates → 01 Jan, 1999 01 Jan, 2000 01 Jan, 2001
Rents • 50 75 100
Totals
TotalDates → 01 Jan, 1999 30 Nov, 1999 01 Jan, 2000 30 Nov, 2000 01 Jan, 2001 30 Nov, 2001
TotalRents • 50 100 75 100 100 100
AnnualTotals
AnnualDates → 30 Nov, 1999 30 Nov, 2000 30 Nov, 2001 30 Nov, 2002 30 Nov, 2003
AnnualRents • 100 175 200

FIG. 24

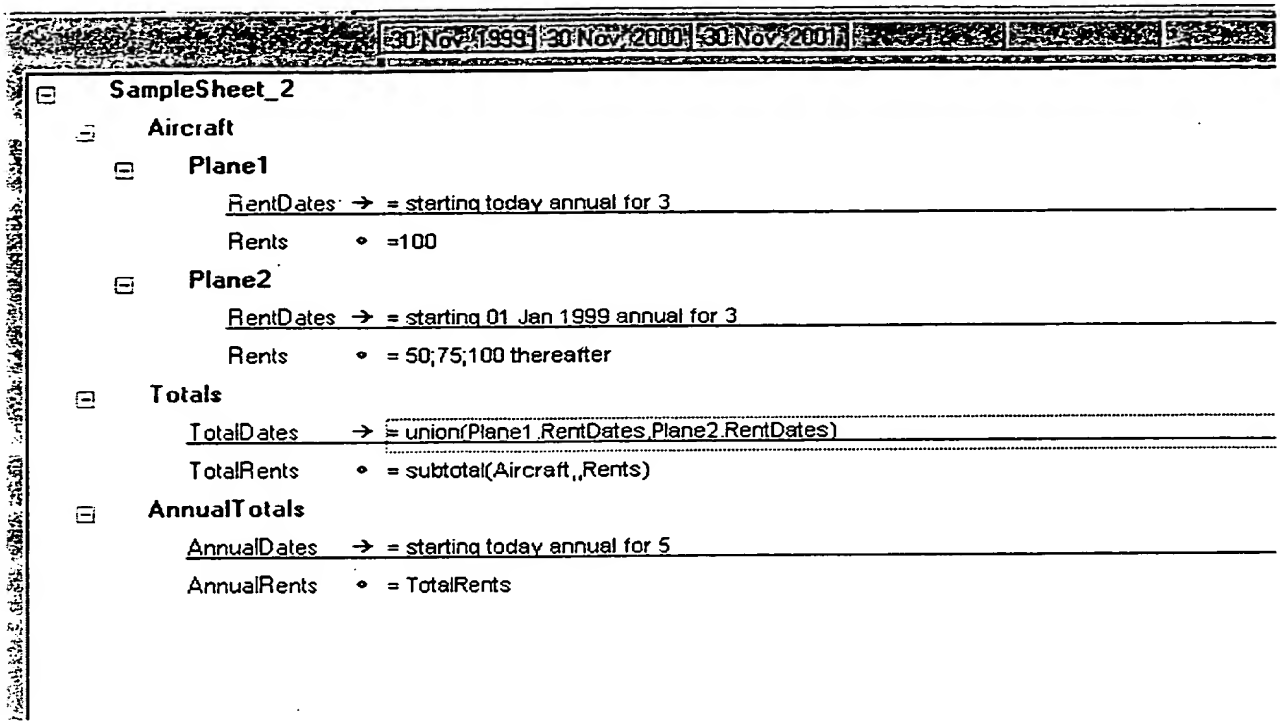

30 Nov 1999
30 Nov 2000
30 Nov 2001
SampleSheet_2
Aircraft
Plane1
RentDates → = starting today annual for 3
Rents • =100
Plane2
RentDates → = starting 01 Jan 1999 annual for 3
Rents • = 50;75;100 thereafter
Totals
TotalDates → = union(Plane1.RentDates,Plane2.RentDates)
TotalRents • = subtotal(Aircraft,,Rents)
AnnualTotals
AnnualDates → = starting today annual for 5
AnnualRents • = TotalRents

FIG. 25

Simple Loan Example

Simple Loan - Values

Inputs								
Scalars								
Cost		1,000,000.00						
Calendar		Actual_365						
RateSchedule								
RateDates	→	01 Jan 2000	01 Jan 2001	01 Jan 2002	01 Jan 2003	01 Jan 2004	01 Jan 2005	. . .
Rate		8.2500%	8.2500%	8.5000%	8.5000%	8.7500%	8.7500%	. . .
Payments								
PaymentDates	→	01 Jan 2000	01 Jul 2000	01 Jan 2001	01 Jul 2001	01 Jan 2002	01 Jul 2002	. . .
InputAmounts	•	0.00	90,909.09	90,909.09	90,909.09	90,909.09	90,909.09	. . .
Amortization								
AmortDates	→	01 Jan 2000	01 Jul 2000	01 Jan 2001	01 Jul 2001	01 Jan 2002	01 Jul 2002	. . .
Principal	•	0.00	60,876.43	63,078.19	66,112.55	67,770.57	71,004.40	. . .
Interest			30,032.66	27,830.90	24,796.54	23,138.52	19,904.69	. . .
DebtService	•	0.00	90,909.09	90,909.09	90,909.09	90,909.09	90,909.09	. . .
Balance	•	730,064.69	669,188.26	606,110.07	539,997.53	472,226.96	401,222.56	. . .
PVFactor	•	1.00	0.96	0.92	0.89	0.85	0.82	. . .
Result								
LoanAmount		730,064.69						

FIG. 26

Simple Loan - Formulas

Inputs

Scalars

Cost		=1000000
Calendar		=timeline.Calendar

RateSchedule

RateDates	→	=starting first(PaymentDates) annual ending last(PaymentDates)
Rate		=Table: 8.25% for 2; 8.5% for 2; 8.75% thereafter

Payments

PaymentDates	→	=StartDates: Starting 01 Jan 2000 semiannual for 11
InputAmounts	•	=0; Cost/(COUNT(PaymentDates)) thereafter

Amortization

AmortDates	→	=ActsLike(PaymentDates); PaymentDates
Principal	•	=DebtService-Interest
Interest	◀	=Arrears:previous(Balance)*Rate*periodInterval(-1)
DebtService	•	=InputAmounts
Balance	•	=Previous(Balance,LoanAmount)-Principal
PVFactor	◦	= Previous(PVFactor,1)/(1+(Rate*PeriodInterval(-1)))

Result

LoanAmount		=SUM(PVFactor*DebtService)

FIG. 27

Present Value and IRR Example

PV IRR - Values

Inputs							
Investor		InvestorParty					
Calendar		European_30_360					
CashFlow_Summary							
Project Dates	→	01 Mar, 1999	15 Apr, 1999	15 Jun, 1999	15 Sep, 1999	15 Dec, 1999	15 Mar, 2020
Investor_PTCF	•	(67,006,051)					0
Investor_Taxes	•		2,179,058	2,179,058	2,179,058	2,179,058	0
Investor_ATCF	•	(67,006,051)	2,179,058	2,179,058	2,179,058	2,179,058	
IRR_Calculation							
FirstIRRDate		28 Feb, 1999					
LastIRRDate		31 Mar, 2020					
IRR_Dates	→	28 Feb, 1999	31 Mar, 1999	30 Apr, 1999	31 May, 1999	30 Jun, 1999	31 Mar, 2020
InvestmentBalance	•		(67,006,051)	(65,587,269)	(66,331,447)	(64,905,010)	18
Earnings	◁		0	(760,276)	(744,177)	(752,621)	0
PV_Calculation							
PVRate_Effective		10.0000%					
PVRate_Nominal		9.5690%					
PV_Dates	→	01 Mar, 1999	01 Apr, 1999	01 May, 1999	01 Jun, 1999	01 Jul, 1999	01 Jan, 2019
PVFactor	•	100.0000%	99.2089%	98.4240%	97.6454%	96.8729%	15.1024%
Base_PTCF	•	(67,006,051)					20,660,833
Discounted_PTCF	•	(67,006,051)	0	0	0	0	3,120,275
Base_ATCF	•	(67,006,051)		2,179,058		2,179,058	17,396,295
Discounted_ATCF	•	(67,006,051)	0	2,144,717	0	2,110,917	2,527,253
PV_Summary							
PVofPTCF_UsingFunction		6,346,148					
PVofPTCF_UsingSP		6,346,148					
PVofATCF_UsingFunction		17,740,438					
PVofATCF_UsingSP		17,740,438					
IRR_Summary							
NominalIRR_UsingSearch		13.6156%					
NominalIRR_UsingFunction		13.6156%					
EffectiveIRR		14.4983%					

FIG. 28

PV IRR - Formulas

Inputs		
Investor		= InvestorParty
Calendar		= European_30_360
CashFlow_Summary		
Project_Dates	→	= dates(collectpayments(Investor, "AfterTaxCash"))
Investor_PTCF	•	= collectpayments(Investor, "PreTaxCash")
Investor_Taxes	•	= collectpayments(Investor, "Taxes")
Investor_ATCF	•	= collectpayments(Investor, "AfterTaxCash")
IRR_Calculation		
FirstIRRDate		= MonthEndOf(First(Dates(CollectPayments(Investor, "AfterTaxCash")))-1 Month
LastIRRDate		= MonthEndOf(Last(Dates(CollectPayments(Investor, "AfterTaxCash"))))
IRR_Dates	→	= starting FirstIRRDate monthly ending LastIRRDate
InvestmentBalance	•	= Cumulative(Investor_ATCF)+Cumulative(Earnings)
Earnings	◄	= Arrears: previous(InvestmentBalance*NominalIRR_UsingSearch*periodinterval)
PV_Calculation		
PVRate_Effective		= NoIndex: 10%
PVRate_Nominal		= NoIndex: 12*((1+PVRate_Effective)^(1/(12))-1)
PV_Dates	→	= starting Closing monthly ending Completion
PVFactor	•	= 1; previous(PVFactor/(1+PVRate_Nominal*PeriodInterval)) thereafter
Base_PTCF	•	= Investor_PTCF
Discounted_PTCF	•	= PVFactor*Investor_PTCF
Base_ATCF	•	= Investor_ATCF
Discounted_ATCF	•	= PVFactor*Investor_ATCF
PV_Summary		
PVofPTCF_UsingFunction		= daily_present_value(Base_PTCF,PVRate_Nominal,Closing, Calendar)
PVofPTCF_UsingSP		= sum(Discounted_PTCF)
PVofATCF_UsingFunction		= daily_present_value(Base_ATCF,PVRate_Nominal,Closing, Calendar)
PVofATCF_UsingSP		= sum(Discounted_ATCF)
IRR_Summary		
NominalIRR_UsingSearch		= Search(-10%,200%,1E-6%,Last(InvestmentBalance),0):0.13615645
NominalIRR_UsingFunction		= monthly_IRR(Investor_ATCF)
EffectiveIRR		=((1+NominalIRR_UsingFunction/12)^(12)-1)

FIG. 29